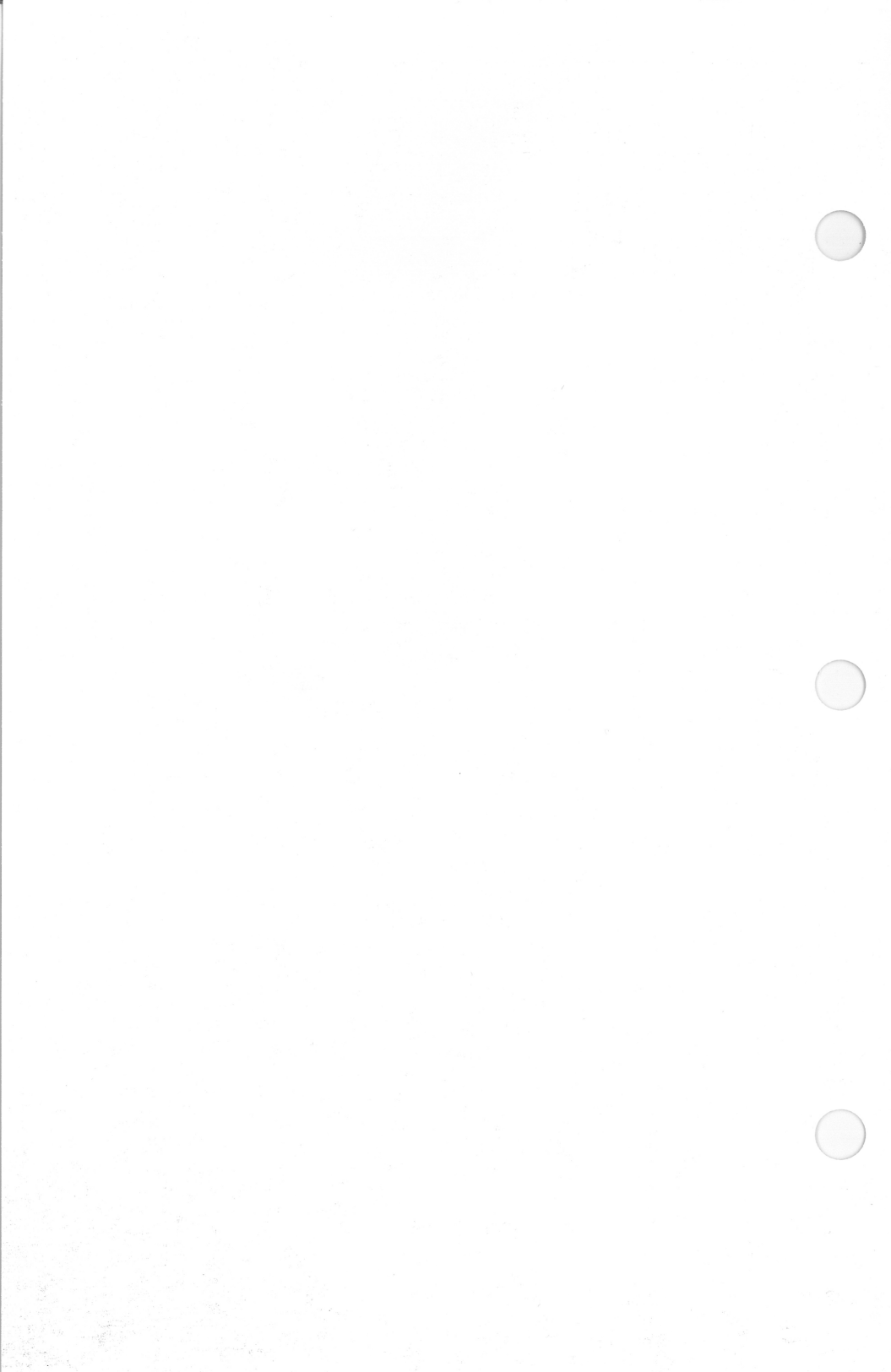


# *AST-5250FT/11-A<sup>TM</sup>*

**AST<sup>®</sup>**  
RESEARCH INC.

*Operator's Manual*





**AST-5250FT/11-A**  
**5250 File Transfer Software**  
**for the**  
**IBM Personal Computer,**  
**PC Portable, PC-XT, PC-AT**  
**and**  
**Other Compatible Systems**

**Operator's Manual**  
**000703-001A**  
**January 1986**

**AST RESEARCH, INC.**  
**Irvine, California**  
**(714) 863-1333**

Second Edition (January 1986)

AST-5251/11, AST-5250FT/11-A, and AST-5250FT/11-B are trademarks of AST Research, Inc.

Copyright for the software of AST-5250FT/11 belongs to Laguna Laboratories, Incorporated. This manual is based on information provided by Laguna Laboratories, Incorporated.

IBM, IBM PC, PC-XT, PC-AT, System/34, System/36, and System/38 are trademarks of International Business Machines Corporation.

DecisionLink is a trademark of Laguna Laboratories, Inc.

Changes are periodically made to the information contained in this manual; these changes will be incorporated into new editions.

A Product Comment Form is provided at the back of this publication. If this form has been removed, please address your comments to: AST Research, Inc., Attn: Product Marketing, 2121 Alton Avenue, Irvine, California, 92714. AST Research may use or distribute any of the information you supply in any way it deems appropriate without incurring any obligations whatsoever.

Copyright © 1985 AST Research, Inc. All rights are reserved, including those to reproduce this book or parts thereof in any form without permission in writing from AST Research, Inc.

# TABLE OF CONTENTS

<b>PREFACE</b> .....	ix
<b>SECTION 1. INTRODUCTION</b> .....	1-1
1.1 What is AST-5250FT/11-A? .....	1-1
1.2 Features .....	1-3
1.3 Overview of System Configuration .....	1-4
1.4 How to Use This Manual .....	1-7
1.4.1 Format Notations .....	1-7
1.4.2 Related Documentation .....	1-7
1.4.3 Manual Outline .....	1-8
<b>SECTION 2. INSTALLATION/INITIALIZATION</b> .....	2-1
2.1 General Information .....	2-1
2.1.1 System Parameters .....	2-1
2.1.2 AST-5250FT/11-A System/3X Files .....	2-3
2.1.3 Views .....	2-5
2.2 Installation .....	2-6
2.2.1 System/34/36 Installation .....	2-7
2.2.2 System/38 Installation .....	2-8
2.3 System/34/36 Initialization .....	2-10
2.3.1 Master Menu .....	2-10
2.3.2 Initialize Files Menu .....	2-12
2.4 System/38 Initialization .....	2-14
<b>SECTION 3. SECURITY</b> .....	3-1
3.1 Security Profiles .....	3-1
3.2 User Security Menu .....	3-1
3.2.1 New User Option .....	3-3
3.2.2 Edit Option .....	3-5
3.2.3 Display User Profiles Option .....	3-7



# TABLE OF CONTENTS

(Continued)

<b>SECTION 4. DATA BASE VIEWS</b>	4-1
4.1 Create/Edit View	4-2
4.1.1 View Header/View Title Specifications	4-7
4.1.2 Record Definition Header/View Record Specifications	4-8
4.1.3 Field Specifications	4-10
4.1.4 Comment Record	4-14
4.2 Copy/Rename View	4-15
4.3 Delete View Function	4-16
4.4 Reports	4-17
4.4.1 List Views Option	4-17
4.4.2 View Summary Reports Option	4-21
4.5 Create View From DDS Specifications	4-25
<b>SECTION 5. ADDITIONAL FUNCTIONS</b>	5-1
5.1 Message Functions	5-1
5.2 Print Functions (System/34/36)	5-2
5.3 Print Functions (System/38)	5-3
<b>SECTION 6. FILE TRANSFER TUTORIAL SESSION</b>	6-1
6.1 System/3X Session	6-2
6.1.1 Activating the Master Menu	6-2
6.1.2 Assigning User Security	6-2
6.1.3 Defining the Views	6-3
6.1.4 Prototype Views (V\$LIBR & V\$CPRT)	6-26
6.2 PC Session	6-26
 <b>APPENDICES</b>	
Appendix A: Error Messages	A-1
Appendix B: View Prototypes	B-1

# TABLE OF CONTENTS

(Continued)

## FIGURES

Figure 1-1.	AST-5250FT/11-A System .....	1-6
Figure 2-1.	Single File View .....	2-6
Figure 2-2.	File Transfer Installation Screen .....	2-9
Figure 2-3.	Master Menu (System/34/36) .....	2-11
Figure 2-4.	Initialize Files Menu .....	2-12
Figure 2-5.	Master Menu (System/38) .....	2-14
Figure 2-6.	Activation Menu .....	2-15
Figure 3-1.	User Security Menu .....	3-2
Figure 3-2.	New User Preliminary Screen .....	3-3
Figure 3-3.	New User Entry Screen .....	3-4
Figure 3-4.	Edit User Profile Screen .....	3-6
Figure 3-5.	Display User Profiles Screen .....	3-7
Figure 4-1.	Data Base Views Menu .....	4-1
Figure 4-2.	Create/Edit View Opening Screen .....	4-3
Figure 4-3.	Display Mode Format .....	4-5
Figure 4-4.	View Header/View Title Specifications Input/Edit Screen .....	4-7
Figure 4-5.	View Header/View Title Specifications Display Record .....	4-8
Figure 4-6.	Record Definition/View Record Specification Input/Edit Screen .....	4-9
Figure 4-7.	Record Definition/View Record Specifications Display Record .....	4-9
Figure 4-8.	Field Entry/Edit Screen .....	4-11
Figure 4-9.	Field Record Display .....	4-11
Figure 4-10.	Comment Input/Edit Screen .....	4-14
Figure 4-11.	Comment Record Display .....	4-14
Figure 4-12.	Copy/Rename View Screen .....	4-15
Figure 4-13.	Delete View Screen .....	4-16
Figure 4-14.	List View Screen .....	4-18
Figure 4-15.	View List Report Format .....	4-19
Figure 4-16.	View Summary Lists .....	4-21
Figure 4-17.	Format of View Summary Listing Reports .....	4-22

# TABLE OF CONTENTS

(Continued)

Figure 4-18. Format of File Reference Summary List Reports .....	4-24
Figure 4-19. View From DDS Specifications .....	4-25
Figure 4-20. DDS View Title Specifications .....	4-26
Figure 4-21. DDS View Record Specifications .....	4-27
Figure 5-1. Message Functions Menu .....	5-1
Figure 5-2. Print Functions Menu .....	5-2
Figure 5-3. Print Function Display Screen System/38 .....	5-4
Figure 6-1. Data Base Views Menu .....	6-4
Figure 6-2. Create/Edit View Screen .....	6-5
Figure 6-3. Create/Edit View Screen Showing Entered Data .....	6-6
Figure 6-4. View Header Screen for PCPUT .....	6-7
Figure 6-5. View Header Screen With Data Entered .....	6-8
Figure 6-6. Record Definition Header Screen .....	6-9
Figure 6-7. Record Definition Header With Data Entered .....	6-10
Figure 6-8. Field Definition Screen .....	6-11
Figure 6-9. Field Definition Screen With Data Entered .....	6-12
Figure 6-10. Field Definition — Field 1 .....	6-13
Figure 6-11. Field Definition — Field 2 .....	6-14
Figure 6-12. Field Definition — Field 3 .....	6-15
Figure 6-13. End-Of-Job Options Screen .....	6-16
Figure 6-14. View Source Listing for PCPUT .....	6-17
Figure 6-15. View Copy and Rename Screen .....	6-18
Figure 6-16. View Source Editor Screen .....	6-19
Figure 6-17. PCGET Information to Edit .....	6-20
Figure 6-18. PCGET With Correct Information Added .....	6-21
Figure 6-19. Reviewing the Edit PCGET .....	6-22
Figure 6-20. End-Of-Job Report .....	6-23
Figure 6-21. PCPUT View Definition Report .....	6-24
Figure 6-22. PCGET View Definition Report .....	6-25

# TABLE OF CONTENTS

(Continued)

## TABLES

Table 2-1. System Parameters .....	2-2
Table 2-2. AST-5250FT/11-A System/3X Data Files (System/34/36) .....	2-4
Table 2-3. AST-5250FT/11-A System/3X Data Files (System/38) .....	2-5
Table 4-1 Examples of Numeric Field .....	4-20



# TABLE OF CONTENTS

(Continued)

## TABLE OF CONTENTS

1.0	Introduction
2.0	Background
3.0	Objectives
4.0	Methodology
5.0	Results
6.0	Conclusions
7.0	References
8.0	Appendices
9.0	Glossary
10.0	Index

(This page intentionally left blank)

## PREFACE

The System/34/36/38® portion of the AST-5250FT/11-A file transfer product consists of the following:

- AST-5250FT/11-A Master 8" floppy diskette.
- AST-5250FT/11-A *Operator's Manual*.

The System/3X operations staff must have these two items in order to correctly install the System/3X portion of AST-5250FT/11-A on the System/3X.

The installation and use of the AST-5250FT/11-A file transfer software should go smoothly. However, if you have a problem after you have completed all instructions, call your dealer or AST Technical Support.

(This page intentionally left blank)

# SECTION 1

## INTRODUCTION

The 8" systems software diskette and this manual are included in the AST-5250FT/11-A <sup>™</sup> file transfer software package. The file transfer software is, in turn, included as a capability in the AST-5251/11 <sup>™</sup> product, which enables an IBM Personal Computer (PC), PC-XT, or PC-AT to locally attach (through twinax cable) to an IBM System/34/36/38 <sup>®</sup> (hereafter referred to as System/3X), IBM 5251 Model 12, or IBM 5294 Control Unit to emulate an IBM 5251 Model 11, 5291, or 5292-1 Display Station (hereafter referred to as 5250).

AST-5250FT/11-A is a combination of PC and System/3X software. That is, one program runs on the PC and a separate program runs on the System/3X. The two programs interact together whenever the PC user initiates a file transfer operation.

The PC software is included in the package on a separate 5-1/4" diskette and is installed and operated by the PC user. A *User's Manual* (000702- 001) describes the PC software installation and operation.

### 1.1 What is AST-5250FT/11-A?

AST-5250FT/11-A is a powerful "software system" that allows PC users, when emulating 5250 Display Stations, to access predefined information on the System/3X -- data base, library, and print information in particular.

In fact, this software system was designed as a "joint venture" between the PC and the System/3X. As such, it offers maximum benefits and functionality to both the PC user and the System/3X operations staff.



## Introduction

Easy-to-learn and use, this combination software was conceived to fill real needs of both the PC user and the System/3X operating personnel.

On the one hand, the PC user needs:

- To “download” data from the System/3X to the PC.
- To “upload” data from the PC to the System/3X.
- To receive the data in formats directly usable by the application.
- To print data from the System/3X on the local PC printer.
- To be able to learn and use the procedures easily.

On the other hand, the System/3X operations personnel need:

- A turnkey system that requires no additional programming.
- Simple, easy-to-learn configuration procedures.
- Minimum degradation of the job load on the System/3X.
- Control over the data base security.
- The ability to use the PC’s specialty printers.
- The ability to use the PC for host software development.

AST-5250FT/11-A was designed to fill both sets of needs while maintaining speed and flexibility.

As part of the system operations staff, you will find AST-5250FT/11-A enables you to offer your users a “distributed computing” capability that allows them to more easily use the power of the System/3X. From your standpoint, you will realize benefits from a reduced demand on the system as the PC workstations perform more and more independent computing and processing.

## 1.2 Features

Key features of AST-5250FT/11-A are listed in the following paragraphs.

- *System/3X Data Base Access* — PC users are allowed access to various logical “views” of the data base as defined by systems personnel.

Once the views are defined, the user accesses selected data for local processing/reporting.

System/3X operations staff define the allowed views of the data base and assign user IDs and passwords to maintain security.

- *System/3X Library Member Maintenance* — PC users are allowed to access and update specified libraries (source or procedure members).

Also, new System/3X library members can be created from the PC. Such a member placed in System/34/36 a library carries a level display of zero instead of the current system release level.

- *System/3X Data Entry Applications* — PC users can create/verify/balance sequential data files on the PC workstation and then transmit them to the System/3X where they can be appended to existing data files.

The system operator then invokes a Report Program Generator (RPG) program to perform the necessary file updates — thus maximizing system security by not allowing the PC user to directly modify sensitive data files.

That is, this capability offers data entry applications with full data validation and batch balancing/reporting in order to capture data at the source and then transfer it to the System/3X for normal processing.

- *System/3X Printing at the PC* — System/3X operations staff can copy data from the System/3X spool file to a data file so that the PC user can access and then print the file at the PC.

This service allows specialized printer resources to be shared between systems (for example, letter quality or graphics printers).

### 1.3 Overview of System Configuration

All of the software needed to install an operational system is included in the AST-5250FT/11-A package. The PC software is loaded and used by the PC user. The System/3X software is installed, initialized, and used by the system operations staff.

The PC software is a generalized program that controls transfer of different file types and services between the systems.

The System/3X software includes both installation and operational software. The operational software is a unique data base access system that handles file requests from the PC software. The installation software is used to detail system configuration and to define access limitations for security purposes.

AST-5250FT/11-A interfaces with the System/3X through the AST-5251/11 Twinax Adapter Board (TAB) with a twinax connection. The PC emulation software (AST-5251/11) must be active and the user "signed-on" to the system before AST-5250FT/11-A can be activated.

All activation is controlled by the PC user after the System/3X software has been installed and configured.

Figure 1-1 is a graphic view of the total AST-5250FT/11-A system.

Although no System/3X operator effort is required to support AST-5250FT/11-A once it is operational, initially, several tasks must be performed to "bring up" the system. This simple installation and initialization process is menu-driven so that the effort required is minimal, and all tasks are explained in this manual.

Basically, you will complete the following steps:

1. Install the AST-5250FT/11-A System/3X software (Section 2.2).
2. Initialize (define) the necessary AST-5250FT/11-A files (Section 2.3).
3. Assign user IDs and passwords for the PC AST-5250FT/11-A users (Section 3.2.1).
4. Define "views" of the data base based on the information that the PC user needs to access on the System/3X (Section 4.1).
5. Provide reports to the PC user of the views defined (Section 4.4).



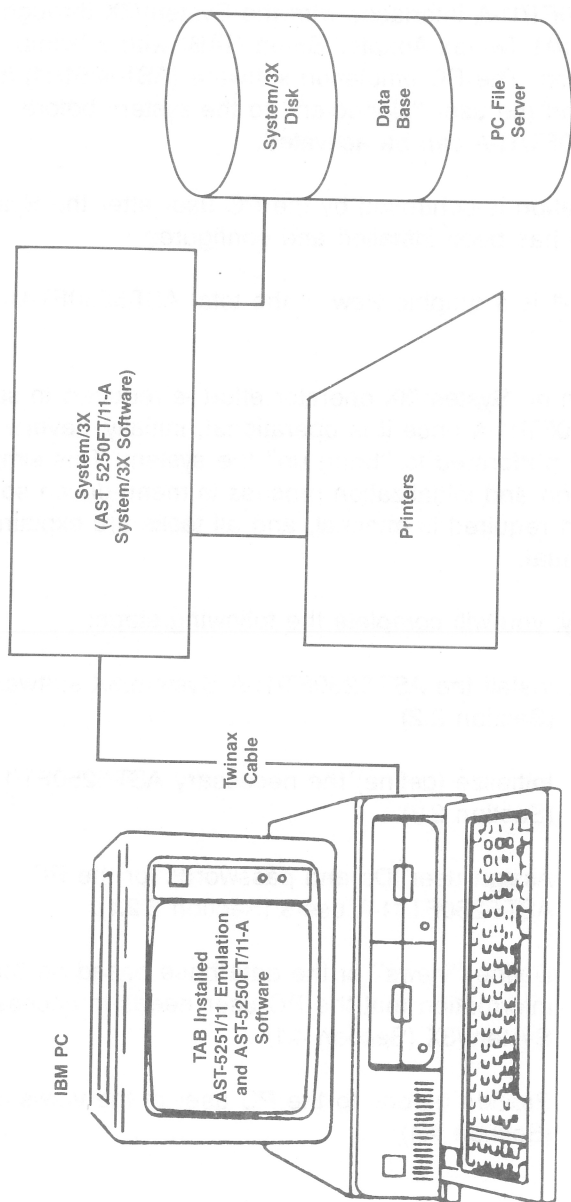


Figure 1-1. AST-5250FT/11-A System.

## 1.4 How to Use This Manual

This manual explains how to install, initialize, and operate the AST-5250FT/11-A System/3X software so that PC users can transfer information between the System/3X and the PC.

### 1.4.1 Format Notations

The following conventions are used in this manual:

- **Boldface** indicates information that you must enter or a key you must press. For example, < **Enter** > means to press the Enter/Carriage Return key.
- A notation such as < **Ctrl** > - < **Alt** > means to press the < **Ctrl** > and < **Alt** > keys simultaneously.
- Square brackets ( [ ] ) indicate an optional term that you can include or omit at your own discretion. The brackets are not part of the input.
- System prompts and messages are shown in color.

### 1.4.2 Related Documentation

This manual assumes that you are familiar with the operations of the host system (System/34/36/38) and its relation to the functions and operations of the IBM 5251 Model 11 Display Station. However, the following publications of the IBM Corporation may be useful to you for reference.

- *Operations Guide* (System/34 SC21-5158).
- *Operating Your Computer* (System/36 SC21-9026).
- *Operator's Guide* (System/38 SC21-7735).

Refer to the *AST-5250FT/11-A User's Manual* (000702-001) for PC and user interface.

### **1.4.3 Manual Outline**

The organization of this manual is as follows:

#### ***SECTION 1. INTRODUCTION***

Explains the AST-5250FT/11-A file transfer capabilities and provides an overview of system configuration. Steps the operations staff through setting up files for a tutorial session for the PC user.

#### ***SECTION 2. INSTALLATION/INITIALIZATION***

Explains the tasks to be completed for installing the System/3X software. Also, steps you through file initialization using the Master Menu.

#### ***SECTION 3. SECURITY***

Describes how to assign user IDs and passwords using the AST-5250FT/11-A System/3X software.

#### ***SECTION 4. DATA BASE VIEWS***

Discusses how to define data base views using the menu-driven software. Explains other data base view functions.

#### ***SECTION 5. ADDITIONAL FUNCTIONS***

Explains the Message and Print Functions.

#### ***APPENDIX A. ERROR MESSAGES***

Lists the error messages.

#### ***APPENDIX B. VIEW PROTOTYPES***

Describes the Library (V\$LIBR) and Print (V\$CPRT) view prototypes.

## SECTION 2

# INSTALLATION/INITIALIZATION

This section explains the simple steps for installing the AST-5250FT/11-A System/3X software. It also steps you through the Master menu so that you can define the files needed by AST-5250FT/11-A. A list of system parameters is included and an explanation of the AST-5250FT/11-A System/3X files.

You will also need to assign user IDs and passwords for the PC user (Section 3.2.1) and define the views to be accessed (Section 4.1).

### 2.1 General Information

Before you begin the installation and initialization procedures, you need to know several pieces of important information — such as, the system parameters, AST-5250FT/11-A System/3X files, and an explanation of *views*.

#### 2.1.1 System Parameters

Table 2-1 details the system parameters required for AST-5250FT/11-A operation.

**Table 2-1. System Parameters.**

Type	System/34/36 Parameter Values	System/38 Parameter Values
Memory Requirements	15-kilobytes (KB) swappable job for each user signed-on to the system.	128-KB for each user.
Disk Requirements	Library file = 200 blocks. Special files = 200 to 600 blocks.	Installation 1.3 megabyte (MB).
Users Supported	Up to 128.	Limited by system capacity.
Views	Up to 128 views (may be mix of specific data base views and/or library views).	Limited by system capacity.
View Capabilities Related Files	One.	One.
Record Size	Physical record = up to 4096 bytes. Logical record = up to 512 bytes.	Physical record = up to 32766 bytes. Logical record = up to 512 bytes.
Logical Fields	Up to 125.	Up to 125
Field Sizes	Alphanumeric = 1-256 (1-29 if key). Zoned decimal = 1-16. Packed = 1-8 (15 digits). Binary = 2, 3, or 4 bytes.	(Same)
Number of Records	Up to 16,711,408.	Unlimited.
Constraints	System/3X data files referenced in a view assume the file with the "latest date" is to be used.	See note.

### Note

Once AST-5250FT/11-A is activated *from a PC*, any *system* message sent to that emulated terminal's screen will abort the session and the following message will be posted:

#### Communication Lost

The emulated session assigned for file transfer should not be in *Workstation Break Mode*.

Authorized users of the SNDBRKMSG command must take care not to interrupt an emulated workstation using AST-5250FT/11-A.

### 2.1.2 AST-5250FT/11-A System/3X Files

Two types of files are used by AST-5250FT/11-A on the System/3X: library files and data files. The special library named DLINK holds all AST-5250FT/11-A menus, procedures, and utilities. The normal size of the System/34/36 library is 200 blocks (1 block is equal to ten 256-byte sectors) and 1.3 megabytes for System/38. This library also contains the user-defined data view source specifications as library members.

The prefix *DL*. (*DL System/38*) denotes the AST-5250FT/11-A System/3X data files. These files are listed in Tables 2-2 and 2-3. The file size parameters are shown in brackets in the form — [d/m], where d is the default size in blocks, and m is the maximum size in blocks.

**Table 2-2. AST-5250FT/11-A System/3X Data Files  
(System/34/36).**

File Name	Explanation	Size
DL.CF	Control File (required). This file contains the user security tables and view object specifications.	[20/80]
DL.WRK	Library Update File. This file has a fixed size — holds up to 9999 source records.	[1/1]
DL.ERRS	Error Message File. This file is generated by AST-5250FT/11-A to contain error messages.	[5/5]
DL.ACT	Sign-On Message File. This file holds any System/3X-defined sign-on message.	[1/1]

Of the files listed in Table 2-2, only the Control file is required; the other files are optional. However, if an optional file is not provided, the corresponding service is not available.

When the AST-5250FT/11-A System/3X software is first installed from diskette, the DLINK library is created and loaded with the menus, procedures, and utilities needed for AST-5250FT/11-A operation. Also, the file DL.ERRS is created.

Successive installations only change the basic execution members and do not affect any other contents of the library.

Once the installation (Section 2.2.1) is finished, the Control file (DL.CF) and any optional files must then be created (defined) using the functions offered on the Initialize Files menu (Section 2.3).

**Table 2-3. AST-5250FT/11-A System/3X Data Files (System/38).**

File Name	Explanation
DLCF	Control File. This file holds the user security profiles and data base view objects defined by System/38 operations.
DLVW	View Source File. This file holds the defined view source members.
DLVWW	View Work File. This file is used as a work file for various processes.

When the AST-5250FT/11-A System/3X software is first installed from diskette, the System/38 files in Table 2-3 are created. All of the files listed are required and created by the installation command CALL DLINIT.DLINK (see Section 2.2.2).

### 2.1.3 Views

Because each user will have certain applications of interest and those applications will require certain access to the System/3X data base, you must define the access that the PC user is allowed. The PC user will only be allowed to access data on the System/3X as defined by views.

A view is a logical file (not a physical file) that is defined to the System/3X through the AST-5250FT/11-A System/3X software. Each view is given a name so that the user can access it.

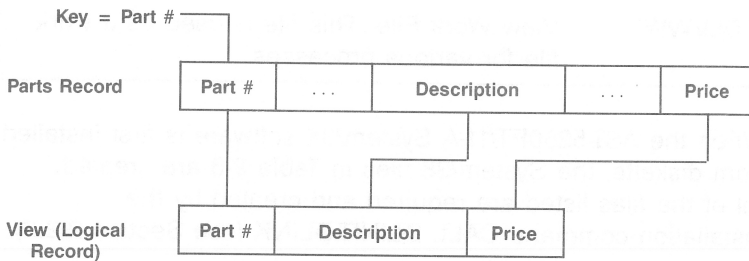
A view may be: (1) a total physical file; (2) a portion of a physical file which is made up of selected fields from each record; or (3) a library. The view may specify a library, in which case the user can access any source or procedure member therein.



*For System/34/36:* a total of 128 views can be defined, but you will need to determine how many views the PC user will need.  
*For System/38:* views are only limited by the system capacity.

Views may be created, edited, or deleted. Once a view is created or edited a report must be generated for the PC user (Section 4.4) so that the user knows the format of the logical record.

Figure 2-1 shows a simple representation of a view.



**Figure 2-1. Single File View.**

## 2.2 Installation

The AST-5250FT/11-A installation software is provided on the 8" IBM 2/2D diskette. Use that diskette to load the software on the System/3X. The following sections guide you through installing the software for System/34/36 and System/38.

## 2.2.1 System/34/36 Installation

### STEP ONE

Take a directory listing of #LIBRARY to ensure that you have 40 member sectors available and four available directory entries.

If this space is not available, CONDENSE the system library and recheck the available space.

If the space is still not available, increase the size of #LIBRARY.

The DLINK library and required support files use approximately 400 blocks.

### STEP TWO

Put the installation diskette in the reader and enter the following:

```
JOBSTR DL3N,DL3X,NOSAVE <Enter>
```

where DL3N is either DL34 or DL36 for a System/34 or System/36, respectively.

Once you enter the above command, the installation begins; the procedure takes about two minutes.

### STEP THREE

During the installation, take a 0-option to any warning messages that may occur. On completion, note the displayed instructions.

Now you are ready to select the DLINK library and begin file initialization.

If this is a reinstallation (not the first installation), AST-5250FT/11-A System/3X is ready to use again. A reinstallation does not affect any existing views or security definitions.

### 2.2.2 System/38 Installation

Installation *cannot* be done from the System console or other small screen terminals.

#### STEP ONE

Enter the following command:

**RSTLIB SAVLIB(DLINK) LOC(\*S1) VOL(\*MOUNTED)**

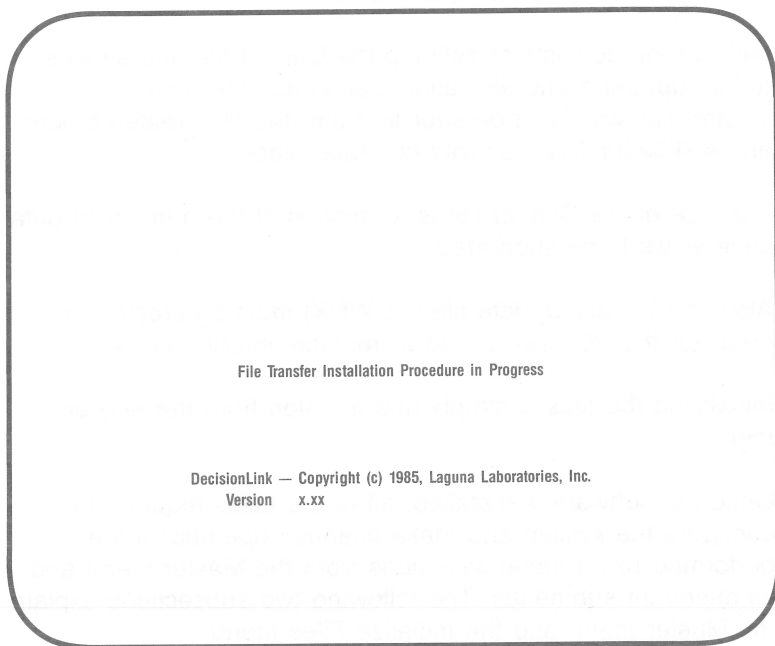
Once you enter the previous command, the installation begins. The procedure takes about fifteen minutes.

#### STEP TWO

If this is the first installation, enter the following command to create the AST-5250FT/11-A files and the default user profile DL38.

**CALL DLINIT.DLINK**

The File Transfer Installation menu will appear as shown in Figure 2-2. Press <**Enter**> to start procedure.



**Figure 2-2. File Transfer Installation Screen.**

### **STEP THREE**

Users, other than the Security Officer, may be allowed access to AST-5250FT/11-A. Enter the following command for each user:

```
GRTOBJAUT OBJ(*ALL.DLINK) OBJTYPE(*ALL)
USER(userprofile) + AUT(*ALL)
```

where userprofile is the user profile name, which is a 10-character alphanumeric variable.

### **STEP FOUR**

The File Transfer library DLINK must be added to the library list before File Transfer may begin. Enter the following command to add DLINK to the library list.

```
RPLLIBL LIBL(DLINK QIDU QTEMP QGPL)
```

## 2.3 System/34/36 Initialization

Initialization consists of defining the Control file and services to be supported and allocating disk space for each. The Control file size must be specified and the file created before any AST-5250FT/11-A activity can take place.

The size of the Control file is a function of the number of data base views to be supported.

Also, the Library Update file (DL.WRK) must be created in order for the PC user to add or replace library members.

Initializing the files is simply one function from the Master menu.

Once the software is installed, all of the tasks required to configure the system and make changes operational are performed using menu selections from the Master menu and its attendant submenus. The following two subsections explain the Master menu and the Initialize Files menu.

### 2.3.1 Master Menu

In order to initialize the files, you must go through the Master menu to get to the Initialize Files menu. To bring the Master menu to the screen, you may enter one the following from the Operator Control Language (OCL) line:

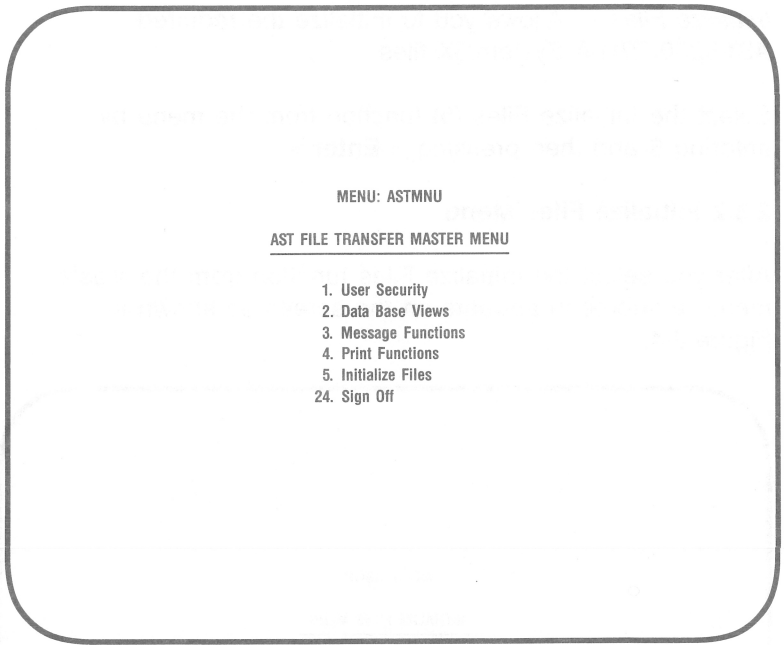
**MENU ASTMNU,DLINK <Enter>**

You may also choose to select the DLINK library at sign-on as follows:

USER ID    **xxxx <Field Exit>**  
MENU       **ASTMNU <Field Exit>**  
LIBRARY    **DLINK <Enter>**

where xxxx is the user's sign-on identification.

The Master menu will appear on the screen for your selection as shown in Figure 2-3.



**Figure 2-3. Master Menu (System/34/36).**

The menu selections shown correspond to functions that you can perform. Pressing the corresponding number causes a submenu or prompts to appear to aid you in performing a specific function. The functions are briefly described below:

*User Security* — Allows you to define the user security profiles (IDs and passwords).

*Data Base Views* — Allows you to define logical views of the data base.

*Message Functions* — Allows you to set up the sign-on message.

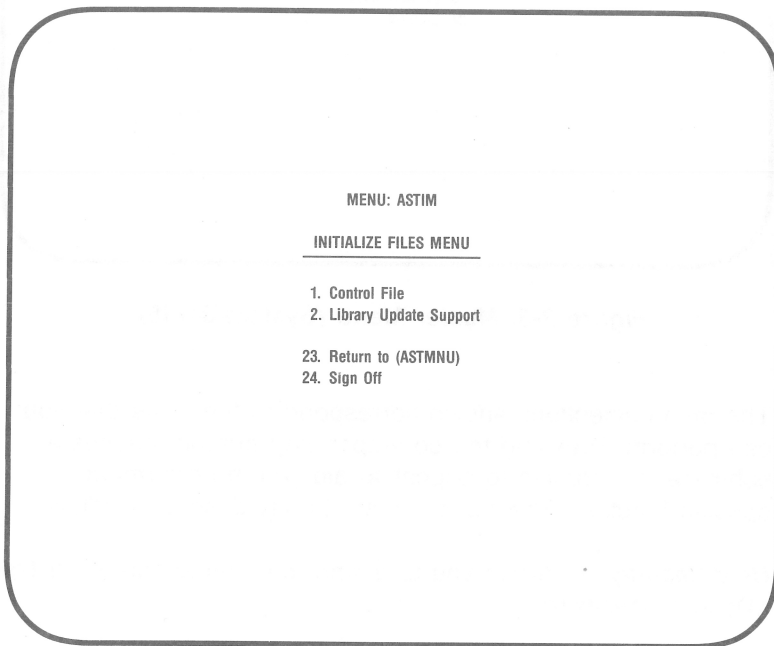
*Print Functions* — Allows you to extract a print file or files from the spool file for access and printing by the PC user.

*Initialize Files* — Allows you to initialize the required AST-5250FT/11-A System/3X files.

Select the Initialize Files (5) function from the menu by entering **5** and then pressing **<Enter>**.

### 2.3.2 Initialize Files Menu

After you select the Initialize Files function from the Master menu, a submenu appears on the screen as shown in Figure 2-4.



**Figure 2-4. Initialize Files Menu.**

The following steps guide you through initializing the Control file and the Library Update file.

### STEP ONE

Enter **1** and then press **<Enter>** to select the Control file (DL.CF) for initialization.

The following prompt now appears on the screen:

MAXIMUM # OF VIEWS:nnn

Type in the maximum number of views (data base and library) that are to be supported and press **<Field Exit>** and then **<Enter>**.

The system creates the Control file allocating space based on the number of views to be supported.

### STEP TWO

The Initialize Files menu reappears on the screen. Enter **2** and then press **<Enter>** to select initialization of the Library Update file. Press **<Y>** and then **<Enter>** to add this support.

The size of this file is fixed. It is sized to hold up to 9999 source records. The system creates the file and the Initialize Files menu is redisplayed.

### STEP THREE

Once the menu is redisplayed, enter **23** and press **<Enter>** to return to the Master menu.

At this point, you have specified that the files be initialized and are ready to continue with the security and view set up procedures. You will again use the Master menu to perform those functions.

Go to Section 3 for an explanation of assigning user IDs and passwords.

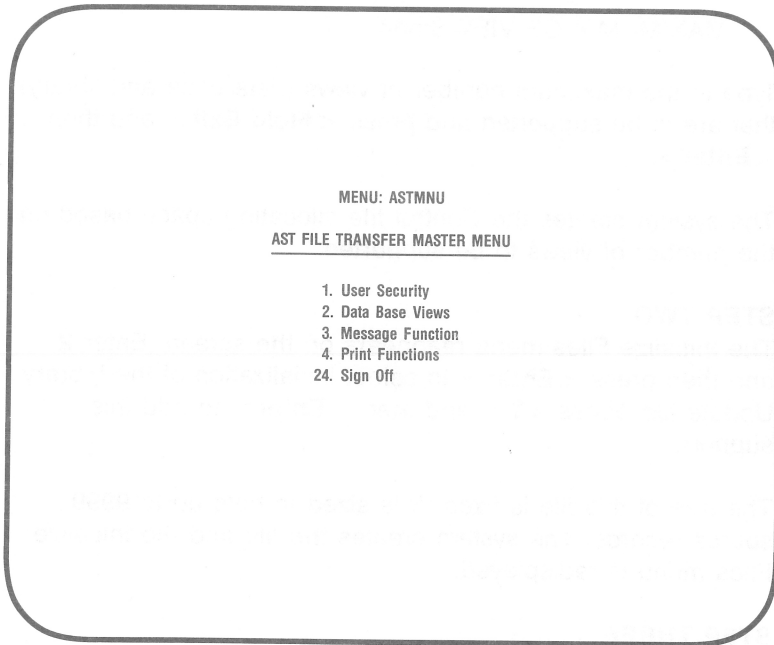


## 2.4 System/38 Initialization

To activate AST-5250FT/11-A, enter the command:

**CALL DLINK.DLINK**

This command adds DLINK to the user's library list and brings up the AST-5250FT/11-A Master menu.

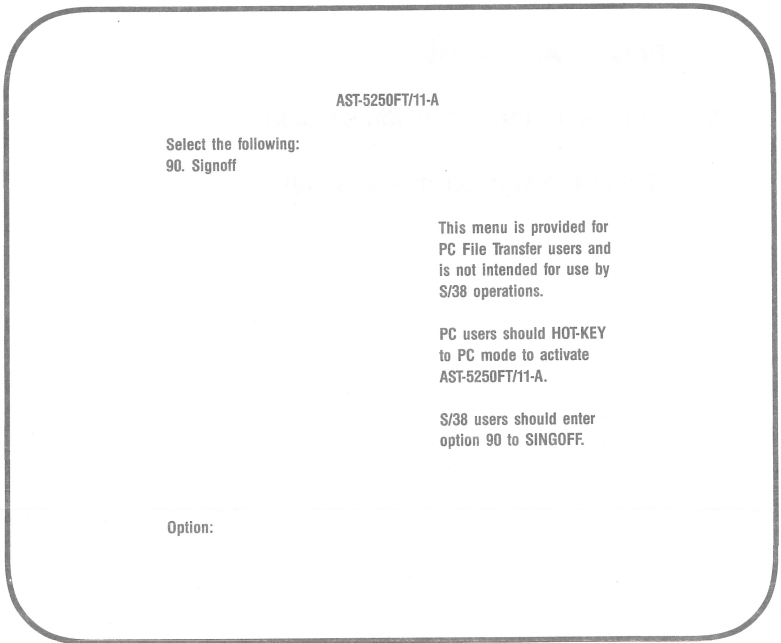


**Figure 2-5. Master Menu (System/38).**

Use Master menu options 1 and 2 respectively to create the PC user security profiles and to define the views of the data base available to users.

The password DL38 is initially provided for PC users to sign-on (profile created by DLINIT).

User profile DL38 sets the user's library list (DLINK QGPL QTEMP QIDU) and brings up a menu with one option: 90 = Sign-off as shown in Figure 2-6.



**Figure 2-6. Activation Menu.**

If other passwords are desired, it is recommended that they be assigned to groups (for example, a department, building, and so forth). Whatever sign-on sequence is used, it must bring up a command entry screen/field or a menu with an option number assigned to activate AST-5250FT/11-A (execute command DLDBA SECURITY). The AST-5250FT/11 PC program sends either a command (DLDBA SECURITY) or an option number "n" to the System/38. The cursor on the posted screen must be able to accept such an entry.

Activating AST-5250FT/11 with the PC-DOS command `ASTFT11 n`, under a user profile, provides menu option selection for sign-off. To end a file transfer session the following steps *must* be taken.

1. Press **<Alt>-<F10>**.
2. Hot key to the emulation session.
3. Select the sign-off menu option.

## SECTION 3

### SECURITY

The PC users of AST-5250FT/11-A must be given security access to the System/3X. Users may be added, deleted, or their security profiles changed using the User Security option (1) on the Master menu. (See Figure 2-3.) Security is based on a unique user ID and “secret” password assigned to each PC user.

In order to sign-on to AST-5250FT/11-A from a PC work station, the user must enter a valid user ID and password. The password is intended to remain secret; it is not displayed on the screen whenever entered. The user ID is not kept secret but rather is used to identify user activity and so forth.

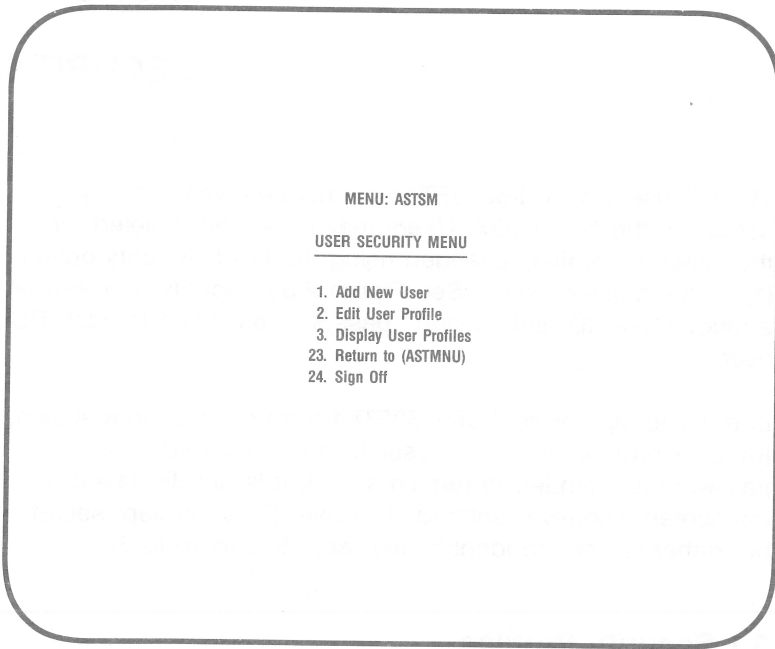
#### 3.1 Security Profiles

Each PC user is assigned a unique user ID of one to four characters. A set of parameters is associated with each user ID; these parameters define the security profile of the user.

These parameters consist of the password and miscellaneous information — such as the date that the user security profile was last changed plus any comments about the profile (up to 15 System/34/36 or 50 System/38 characters; for example, a user’s name). The date is automatically assigned by the system and cannot be changed by the operator.

#### 3.2 User Security Menu

The User Security menu appears when you select option 1 (User Security) from the Master menu. This submenu lists the options available to the System/3X operations staff as shown in Figure 3-1.



**Figure 3-1. User Security Menu.**

You will use the User Security menu for all options related to security — adding, changing, deleting, and viewing user security profiles. Initially, you must assign the user IDs and passwords using option 1.

You choose options by entering the number that corresponds to the option you want and then pressing **<Enter>**.

Whenever the User Security menu is displayed, you may choose to return to the Master menu by entering **23<Enter>**, or you may end the AST-5250FT/11-A session by entering **24<Enter>**.

### 3.2.1 New User Option

When you select option 1 (Add New User) on the User Security menu, the screen shown in Figure 3-2 is displayed on the screen, asking you for the user ID.

```
NEW USER ENTRY

USER-ID
x x x x

ENTER TO ADD TO FILE, CMD Key 7 TO END
```

**Figure 3-2. New User Preliminary Screen.**

In the upper left corner of the screen, the date in the form mm/dd/yy and hh:mm:ss is automatically added by the system to show the month, day, year, hours, minutes, and seconds of the entry.

Once you have entered the User ID, shown in Figure 3-2, press **<Enter>** or **<Field Exit>** to display the screen shown in Figure 3-3. This screen allows you to set up the User ID and password.

mm/dd/yy  
 hh:mm:ss

**NEW USER ENTRY**

USER	GROUP	PASSWORD	* ... CLASS ... *	LEVEL	COMMENT.....
1234567890123456					
xxxx	xxxx	xxxx	xxxxxxxxxxxxxxxx	x	xxxxxxxxxxxxxxxx

ENTER TO ADD TO FILE, CMD Key 8 FOR NO UPDATE

**Figure 3-3. New User Entry Screen.**

The screen prompts you to enter the desired characters for the user ID, group ID, and password fields shown by “xxxx”. Only the user ID and password are mandatory. The cursor is positioned at the group field when the screen is displayed. Enter the group ID, then press <**Field Exit**> to go to the password field.

The user ID, group ID, and password fields are allowed up to four characters. Once you have finished entering the password, press <**Field Exit**> three times to skip through the class and level fields and go to the comment field.

The class field is not used in the AST-5250FT/11-A software.

The comment field allows *System/34/36* users to enter a comment that is 1-to-15 characters in length. *System/38* allows users to enter a comment that is 1-to-50 characters in length.

Once you have completed the entries, press **<Enter>** to add the profile to the file.

If you choose not to add the profile, press command key eight **<Cmd>-<8>** for no update and then command key seven **<Cmd>-<7>** to return to the User Security menu.

### 3.2.2 Edit Option

If you choose option 2 (Edit User Profile) on the User Security menu, the user security profile will be displayed as it currently exists so that you can make changes. After you enter the selection, the following prompt is displayed in the upper left corner of the screen:

#### EDIT USER PROFILE

mm/dd/yy  
hh:mm:ss

User ID

xxx

ENTER to Edit Profile, CMD Key 7 to END

The cursor is positioned immediately after the "ID" so that you can enter the user ID of the profile that you want to change. After you enter the user ID, press **<Enter>**.

The screen shown in Figure 3-4 then appears on the screen, where the "xxx...x" entries signify the actual data previously entered for that user.



mm/dd/yy hh:mm:ss		EDIT USER PROFILE			DL012002	
D USER	GROUP	PASSWORD	* ... CLASS ... *	LEVEL	COMMENT.....	DATE
			1234567890123456			
XXXX	XXXX	XXXX	XXXXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXX	mm/dd/yy

Enter to Update File, CMD Key 8 for no Update  
CMD Key 11 for Delete

**Figure 3-4. Edit User Profile Screen.**

The date in the upper left corner of the screen is automatically supplied by the System/3X.

The "D" field is used to *delete* the user security profile. If you enter any nonblank character in that field, the profile will be deleted. For System/38 use <Cmd>-<11> to delete the user security profile.

You may overwrite any characters displayed in a specific field to make a change. The cursor is positioned at the first field when the screen appears. If you make a change to the field, you may use the <Field Exit> key to go to the next field.

If you do not want to change a field, press the <Tab> key to skip to the next field. If you use the <Field Exit> key to go to the next field, the previous field will be "zeroed".

The date field on the right side of the screen (mm/dd/yy) shows the last time that the user security profile was edited.

Once you have finished with the entries, press <Enter> to update the file. If you do not want to update the file press command key eight <Cmd>-<8> to return to the Edit User ID, then enter <Cmd>-<7> for the User Security menu.

3.2.3 Display User Profiles Option

If you choose option 3 (Display User Profiles) on the User Security menu, all defined security profiles are displayed on the screen (17 lines per screen) for your scrutiny.

Figure 3-5 shows the format of this display, where “xxx...x” entries signify the actual data for a given user and the mm/dd/yy under the date field shows when the security profile was last changed.

mm/dd/yy hh:mm:ss		DISPLAY USERS				DL0130D1	
USER	GROUP	PASSWORD	* ... CLASS ... *	LEVEL	COMMENT.....	DATE	
			1234567890123456				
xxxx	xxxx	xxxx	xxxxxxxxxxxxxxxx	x	xxxxxxxxxxxxxxxx	mm/dd/yy	
xxxx	xxxx	xxxx	xxxxxxxxxxxxxxxx	x	xxxxxxxxxxxxxxxx	mm/dd/yy	
xxxx	xxxx	xxxx	xxxxxxxxxxxxxxxx	x	xxxxxxxxxxxxxxxx	mm/dd/yy	
.	.	.	.	.	.	.	
.	.	.	.	.	.	.	
.	.	.	.	.	.	.	
xxxx	xxxx	xxxx	xxxxxxxxxxxxxxxx	x	xxxxxxxxxxxxxxxx	mm/dd/yy	

Figure 3-5. Display User Profiles Screen.

## Security

To see additional screens of user profiles (if any), press **<Enter>**, for *Systems/34/36*, and press **<Roll>** for *System/38*. To end the option, press command key seven **<Cmd>-<7>** and return to the User Security menu.



## SECTION 4

# DATA BASE VIEWS

This section describes all the functions relating to the definition/maintenance of data base views and the reports relating to them.

The submenu shown in Figure 4-1 is displayed when the Data Base Views option is selected from the Master menu.

```
COMMAND MENU:                                ASTVWS                                SC

                                DATA BASE VIEWS MENU

                                1.Create/Edit View
                                2.Copy/Rename View
                                3.Delete View
                                4.List Views
                                5.View Summary Reports
                                6.Create View From DDS Specifications
                                23.Return to (ASTMNU)
                                24.Sign Off

Ready for option number or command
```

**Figure 4-1. Data Base Views Menu.**

Views may be created or edited using option 1. Option 2 (Copy and Rename) allows the operator to create a new view from an existing view to serve as a base for editing. Views may be deleted using option 3.

## Data Base Views

Once a view is created or changed (edited), a List View report should be prepared using option 4. This report serves as a definition of the view for the PC user and for System/3X operations.

The Summary Reports, option 5, show all defined views and the data files or libraries they reference.

Views may be created from Data Definition Specifications (DDS) using option 6. *This option is available only for System/38.*

The view functions available to the operator are described in the following sections.

### 4.1 Create/Edit View

This option is used to create new data base views and to edit existing ones.

When the Create/Edit View option is selected, an initial screen is displayed as shown in Figure 4-2.

CREATE/EDIT VIEW

View Name .....	vvvvvv	(1)
View Library .....	DLINK	(2)
Compile View (Y/N) .....	Y	(3)

Revise all Parameters and ENTER to Continue  
or CMD 7 for End of Job

**Figure 4-2. Create/Edit View Opening Screen.**

With respect to this screen, the operator makes three entries:

1. Enter the name of the view (one to six characters) to be created or edited. The PC program will only be able to access views with alphanumeric names, so avoid special characters when naming a view that is to be immediately available to PC users.
2. Enter the name of the library that contains or will contain the view. The default is DLINK. It is recommended that all views be kept in this library as some of the reporting utilities described later in this section only report from this library.

3. Enter a **Y** (default) if the view is to be compiled following creation or editing. Enter an **N** if compilation is to be skipped.

### NOTE

For a view to be used it must be compiled.

Press **<Enter>** to proceed or **<Cmd>-<7>** to return to the Data Base View menu.

Following entry of the initial parameters, the view editor is executed to create or edit a View Specification. All basic 5250 terminal editing keys are operable (Insert, Delete, cursor/field/line movement, and so forth). The user is assumed to be familiar with the 5250 keyboard and terminal operation.

If a new view is being defined, the user will be requested to enter in sequence:

1. A View Header (System/34/36) or View Title Specification (System/38) defining the view type, title and security.
2. A Record Definition to define the System/3X data file (or Library) for which various fields are to be defined plus the file mode of access.
3. All Fields of concern within the record from the specified file and their order in the logical record.

Use **<Cmd>-<3>** to enter a comment record or **<Cmd>-<7>** to go to end of job. To review previously entered view records, use **<Cmd>-<5>** to go to Display mode. The Display mode lists all currently defined records forming the view, each identified by a sequence number (in increments of 10). When indicated on the screen, **<Cmd>-<4>** can be used to delete an existing record. Each record type has a unique Input/Edit screen and display screen which are described in the appropriate subsections.

If an existing view is being edited, the Display mode is entered and existing records in the view are displayed as shown in Figure 4-3.

mm/dd/yy		CREATE/EDIT VIEW		vvvvv	hh:mm
seq#	rec	name --	type	attributes -----	notes -----
nnnn	t	xxxxxxx	n	xxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxx
.	.			.	
.	.			.	
.	.			.	

Enter Sequence Number to Edit (Add) \_\_\_\_

CMD 1 to Scroll through View CMD 7 to End Job

**Figure 4-3. Display Mode Format.**

Use **<Cmd>-<1>** to scroll through the view. At the end of the view, the first part of the view will be redisplayed when **<Cmd>-<1>** is used.

To edit a record, enter the sequence number (nnnn) for that record. The appropriate screen format for that record type will be displayed with the current data in preparation for editing. Any displayed field may be changed; press **<Enter>** to accept the data and bring up the next record. To review the entered data, use **<Cmd>-<5>** to go to Display mode.



To add a record, enter a new sequence number where the record is to be placed; for example, enter 31 to add a new record between 0030 and 0040. To add a record at the end of the view, enter a sequence number greater than the highest one displayed (the number will be rounded to the next highest multiple of ten). For example, if the last sequence number is 80, enter any number greater than 80 to enter statement 90.

During entry or editing, the input data is checked for validity and any errors detected are immediately displayed at the bottom of the screen; the cursor is positioned for entry at the field in error. As a general rule, use the **<Field Exit>** key to end each entry.

Use **<Cmd>-<7>** to end Entry/Edit. At the end of the job, you have the option to abandon (ignore) the edited source or to continue. When continuing from the end-of-job (EOJ), a formatted source listing of the view is printed for your records. This occurs only if the "Y" compile option is selected. Any errors are displayed on this report as well as on your display screen (see Appendix A for a list of view specification error messages). If errors are displayed at your screen, press **<Enter>** to continue after first noting the error descriptions.

If the view source is valid, the View Object member will be created in the AST-5250FT/11-A control file. If an error occurs at this time (see Appendix A for a list of compiler error messages), the process is aborted and the new view will not be usable (defined).

The format and use of the Input/Edit screen formats for each record type (plus their display formats) are defined in the following subsections. The numbers shown in parentheses on the various screens correspond to the notes that follow each one.

#### 4.1.1 View Header/View Title Specifications

Every View Header (System/34/36) or View Title Specifications (System/38) must have the following: only one header specifying a title for the view (optional), the type of view (Read-only, Enter-only, or Library), and security data (class and group access) provided for future expansion. The View Header/View Title Specifications Input/Edit screen is shown in Figure 4-4. The corresponding display record layout, which begins in the upper, left-hand corner of the screen, is illustrated in Figure 4-5.

```

mm/dd/yy                CREATE/EDIT VIEW                vvvvvv                hh:mm

Record Type—1  View
Header

View Title ..... xxxxxxxxxxxxxxxxxxxxxx (1)

Access(R,E,L) ..... x (2)

Security Access (0-16) .. nn (3)

Group Access ..... xxxx (4)

CMD 5 to Display/Browse (no update)                CMD 7 to End Job
  
```

**Figure 4-4. View Header/View Title Specifications Input/Edit Screen.**

seq #	rec	name	----	type	attributes	-----	notes	-----
nnnn	1	viewname	(2)		(3)	(4)		(1)

**Figure 4-5. View Header/View Title Specifications  
Display Record.**

#### NOTES TO FIGURES 4-4 & 4-5

- (1) Enter view title (optional): *For System/34/36 up to 20 characters. For System/38 up to 50 characters.*
- (2) Enter view access type:  
                   R = Read Only, E = Entry Only,  
                   L = Library (Read/Write)
- (3) Enter Security class: 0 to 16.
- (4) Enter an optional nonblank group code (1 to 4 characters), if desired, to further label the view.

#### NOTE

*For System/38 users:* the first time this screen appears <Cmd>-<5>  
Display/Browse is not applicable, until the appropriate data is entered.

#### 4.1.2 Record Definition Header/View Record Specification

The name of the file (or Library if View type "L") and how it is to be accessed is defined by this record type.

The terms *Record Definition* (System/34/36) or *View Record Specification* (System/38) refer to the definition of a file record format and consists of the header and the following field specifications pertaining to a record from the named file. The Record Definition/View Record Specifications screen is shown in Figure 4-6. The corresponding display record layout, which begins in the upper, left-hand corner of the screen, is illustrated in Figure 4-7.

mm/dd/yy	CREATE/EDIT VIEW	vvvvv	hh:mm
Record Type—2      Record Definition Header			
File Name .....	xxxxxxx	(1)	
Library Name .....	(2)		
Member Name .....		(3)	
Access (I = Indexed, R = Relative Record) ..	x	(4)	
CMD 5 to Display/Browse (no update)		CMD 7 to End Job	

**Figure 4-6. Record Definition/View Record Specifications Input/Edit Screen.**

seq #	rec	name	--	type	attributes	-----	notes	-----
nnnn	2	(1)		(2)				

**Figure 4-7. Record Definition/View Record Specifications Display Record.**

#### NOTES TO FIGURES 4-6 & 4-7

- (1) Enter the name of the file (or library) for which data fields are to be defined.
- (2) Enter the name of the library. *This entry is only available for System/38 users.*
- (3) Enter the name of the member. *This entry is only available for System/38 users.*
- (4) Enter a code to specify how the file is to be accessed.

If the file is Sequential or Direct, or if the file is indexed but is to be referenced by a relative record number (instead of an explicit key), enter **R**. Access by relative record number is faster than by explicit key.

If the file is indexed and referenced normally by an explicit key, enter a **I**. If an **I** is entered and the file is not indexed, **R** is assumed when the view is used.

If this is a *Library* view, the entry is ignored; enter an **R**.

### NOTE

*For System/38 users:* the first time this screen appears <Cmd>-<5>

Display/Browse is not applicable, until the appropriate data is entered.

### 4.1.3 Field Specifications

This record type is used to define the fields of the record of concern to the user. For downloading data, only those fields needed by the application need be defined. For uploading data to the System/3X, all fields in the data record must be defined in the order they appear in the record. The Field Entry/Edit screen is shown in Figure 4-8. The corresponding display record layout, which begins in the upper, left-hand corner of the screen, is illustrated in Figure 4-9.

mm/dd/yy	CREATE/EDIT VIEW	vvvvvv	hh:mm
Record Type-3      Field Definition			
Field Name .....	xxxxxx	(1)	
Field Description .....	xxxxxxxxxxxxxxxxxxxxxx	(2)	
Field Type ( ,K,D) .....	x	(3)	
Starting Position .....	nnnn	(4)	
Ending Position .....	nnnn	(5)	
Data Format (A,N,P,B) .....	x	(6)	
Decimal Positions .....	n	(7)	
Security Level (0-9) .....	n	(8)	
Logical Field Number .....	nnn	(9)	
Field Notes/Codes .....	xxxxxxxxxx	(10)	
CMD 3 to Enter Comment		CMD 4 to Delete	CMD 7 to End Job
CMD 5 to Display/Browse (no update)			

Figure 4-8. Field Entry/Edit Screen.

seq#	rec	name	-----	type	attributes	-----	notes	-----
nnnn	3	(1)		(3)	(4)-(5)	(6)(7)	(8)	(9) (10)

Figure 4-9. Field Record Display.

## NOTES TO FIGURES 4-8 &amp; 4-9

- (1) Enter field name (optional) of up to six characters.
- (2) Enter field description (optional) of up to fifty characters. *This entry is only available for System/38 users.*

- (3) Enter field type: A blank (null) entry indicates a normal data field. Special field type codes may be entered: K = Key field or D = Deleted Record specification.

The first field specified in a Record Definition must be a Key field. (Only one Key field is allowed.) When creating a view, a "K" is displayed as the default type for this first field.

A "D" type field specifies a test to determine if a record is deleted; deleted records are ignored. If this specification is used, it should immediately follow the Key (K) field specification and before any data fields definitions. The ending position for this field cannot exceed 512.

- (4) Enter field start position within the record.
- (5) Enter the field ending position.

For a Key field, the start/end positions specify only the number of bytes in the key and need not denote the position of the key in the record (indexed file). For a relative record number, specify a length equal to the maximum number of digits in the largest record number.

For an Entry-Only view (type E), the starting/ending positions specify only the field length and not the position of the field within the data record. Fields, in this case, will be in order by Logical Field number.

- (6) Enter field data format: A = Alphanumeric.  
P = Packed Numeric.  
N = Numeric.  
B = Binary.
- (7) Decimal Positions: 0-9 if numeric (N, P, or B); otherwise blank.

- (8) Enter security level: 0-9 or blank (null) for 0. A user whose security level is less than that specified will not be able to see the contents of the field.
- (9) Logical Field Number: A number representing the order of the field within the logical record. A zero or blank means that the field is not present within the logical record. *Entry of this field is required for data fields* It is optional for a Key field. A nonblank or nonzero entry is invalid for a Deleted field specification.
- (10) Enter any field description or validation notes of up to 10 characters (optional).

For a type "D" field, enter the character used to denote a deleted record.

#### NOTE

*For System/38 users:* the first time this screen appears <Cmd>-<5> Display/Browse is not applicable, until the appropriate data is entered. The following screens will be presented with <Cmd>-<4> Delete Record.

For a data field (type = blank) in an Enter view, a question mark (?) in the first character position of this field indicates that *system* data is to be inserted in the record in the positions indicated. The character following the "?" denotes what type of system data:

?1 — User's ID (four characters)

?2 — User's Group Code (four characters)

If the length of the field specified is less than the length of the system data, the leftmost characters are used. If the field length is greater than 4, the field is filled out with blanks.



#### 4.1.4 Comment Record

Comments may be used as desired to assist in documenting the View Specification. The Comment Input/Edit screen is shown in Figure 4-10. The corresponding display record layout, which begins in the upper, left-hand corner on the screen, is illustrated in Figure 4-11.

```

mm/dd/yy          CREATE/EDIT VIEW          vvvvv          hh:mm

Record Type—Comments

COMMENT..... xxxxxxxxxxxxxxxxxxxxxxxxxxxx (1)

CMD 3 for Field Input          CMD 4 to Delete          CMD 7 to End Job
CMD 5 Display/Browse (no update)

```

**Figure 4-10. Comment Input/Edit Screen.**

```
seq # rec  name -- type  attributes ----- notes -----
nnnn  n      *(1)
```

**Figure 4-11. Commment Record Display.**

**NOTE TO FIGURES 4-10 & 4-11.**

- (1) Enter any desired comments:  
*System/34/36* provides up to 33 characters.  
*System/38* provides two lines 40 characters each.
- (2) *System/38* displays only one comment line in the Comment Record Display.

**4.2 Copy/Rename View**

This option copies a view and gives it a new name. The Create/Edit View option is then automatically evoked to allow the new view to be edited, if desired.

When the Copy/Rename View option is selected, an initial screen is displayed as shown in Figure 4-12.

View Copy and Rename

View Name ..... xxxxxx

View Library ..... DLINK

New View Name ..... yyyyyy

New View Library ..... DLINK

Revise all Parameters and ENTER to Continue  
or CMD 7 for End of Job

After Continue, use CMD 3 to select format

**Figure 4-12. Copy/Rename View Screen.**

This screen requires you to supply four entries as described in the following paragraphs.

*View Name* — The name of the view to be copied.

*View Library* — The name of the library that contains the view to be copied. The DLINK library is the default.

*New View Name* — The name of the new view (copy of original view specified).

*New View Library* — The name of the library that will contain the new view (copy of original view specified). The DLINK library is the default.

### 4.3 Delete View Function

If you choose option 3 (Delete View) on the Data Base Views menu (Figure 4-1), the screen shown in Figure 4-13 is displayed on the screen. This option allows you to delete views.

DELETE VIEW

View Name ..... xxxxxx

View Source Library ..... DLINK

Revise all Parameters and ENTER to Continue  
or CMD 7 for End of Job

*Figure 4-13. Delete View Screen.*

This screen requires you to supply two entries as described in the following paragraphs.

*View Name* — The name of the view to be deleted.

*View Source Library* — The name of the library that contains the view to be deleted. The DLINK library is the default.

## 4.4 Reports

Two different reports are produced by options 4 (List Views) and 5 (View Summary Reports) on the Data Base Views menu (Figure 4-1). These two types of reports (and, thus, these two options) are described in the following subsections.

### 4.4.1 List Views Option

If you choose option 4 (List Views) on the Data Base Views menu (Figure 4-1), a report is produced that serves two purposes:

- It defines to the PC user the format or fields of the logical record corresponding to the view.
- It relates the fields of the logical record to specific (source) data files and fields for the System/3X operations staff.

You should give the PC user a copy of the view list report for the views defined for that user. Figure 4-14 shows the screen that appears when this option is selected.

The screenshot shows a terminal window with a title bar. Inside, the text 'LIST VIEW' is centered. Below it, there are two lines of text: 'View Name (ALL = all)' and 'View Source Library ..... DLINK'. The first line is a label, and the second line shows a field with a series of dots followed by the text 'DLINK'.

**Figure 4-14. List View Screen.**

The screen requires you to supply two entries as described in the following paragraphs.

**VIEW NAME** — The name of the view to be listed or to choose that all views be listed.

**VIEW SOURCE LIBRARY** — The name of the library that contains the view (or views). The DLINK library is the default.

Figure 4-15 illustrates the information contained in a view list report.

VIEW NAME : xxxxxx		ACCESS(R,E,L):		x GROUP:		SECURITY (0-16):	
VIEW TITLE : xxxxxxxxxxxxxxxxxxxxxx				DATE: mm/dd/yy			
FIELD				SOURCE			
NO.	NAME	TYPE	LENGTH	NOTES	FILE	FIELD SPEC'S	
KEY	xxxxxx	t	l	aaaaaaaaaa	xxxxxxx	xxx...xxx	
n	xxxxxx	t	l.d	aaaaaaaaaa	xxxxxxx	xxx...xxx	
.	.	.	.	.	.	.	
.	.	.	.	.	.	.	
.	.	.	.	.	.	.	
n	xxxxxx	t	l.d	aaaaaaaaaa	xxxxxxx	xxx...xxx	

Figure 4-15. View List Report Format.

The information on the top part of the report recaps identification data for the view.

The columns shown across the report are defined as follows:

**NO.** — Shows the logical field number or KEY for the key field.

**NAME** — Lists the specified field name, if any.

**TYPE** — Contains the specification for the type of data in the field: A = alphanumeric and N = numeric.

**LENGTH** — Shows the maximum field length for an alphanumeric (A) field. For numeric (N) fields lists the maximum number of digits, a decimal point, and the number of decimal digits.

The length of numeric fields has the form 1.d; where 1 represents the total maximum digits and where d is the number of digits following the decimal point. A few examples are given in Table 4-1.

**Table 4-1. Examples of Numeric Field Lengths.**

Length	Number Format
6.2	nnnn.nn
4.0	nnnn
4.4	.nnnn

**NOTES** — Lists any field description and/or constraints entered by the person defining the view to clarify certain field characteristics; (for example, unsigned, valid range of values, and so forth).

**FILE** — Provides the name of the file from which the logical field was extracted. A blank entry indicates that the prior named file was used as the source for the field data. *System/38* displays Library and member files.

**FIELD SPECIFICATION** — Provides the specifications from the view definition which defined the source record field used in the view.

#### 4.4.2 View Summary Reports Option

If you choose option 5 (View Summary Reports) on the Data Base Views menu, the screen in Figure 4-16 is displayed.

```
mm/dd/yy          VIEW SUMMARY LISTS          hh:mm:ss

Select Report B-both ..... A
V-view only F-file only

View Source Library ..... DLINK

Revise all Parameters and ENTER to Continue
or Cmd 7—for End of Job
```

**Figure 4-16. View Summary Lists.**

Two reports are produced from the AST-5250FT/11-A Control File (DL.CF) for use by the System/3X operations staff. These two reports show the size of the area in the Control File allocated to storing the views and the portion of this area remaining to hold new views.

Specifically, these two reports provide the following:

- A list of all views showing their name, type, size, and the System/3X data files used.
- A list of all System/3X data files used and the names of the views that reference them.



These two reports are described in the following paragraphs.

### *VIEW SUMMARY LISTING REPORT*

The format of the View Summary Listing report is shown in Figure 4-17. The numbers in parentheses refer to notes following the figure.

mm-dd-yy		VIEW SUMMARY LIST		Page nn
CONTROL FILE DL.CF		FILE SIZE—nn SECTORS	UNUSED—nn SECTORS	
(1)		(2)	(3)	
VIEW NAME	A C	SIZE IN SECTORS	FILES REFERENCED	
xxxxxx	x	nn	name name name . . . name	
(4)	(5)	(6)	(7)	
	aaaaaaaaaaaaaaaaaaaa			
	(8)			

**Figure 4-17. Format of View Summary Listing Report.**

**NOTES**

- (1) Control File DL.CF *applies only to System/34/36.*
- (2) The number of sectors in the Control File allocated for views, *applies only to System/34/36.*
- (3) The number of sectors remaining to hold views, *applies only to System/34/36.*
- (4) View name. Names are listed in alphabetic order (A-Z).
- (5) View Access Type (R = Read Only, E = Entry Only, L = Library).
- (6) The number of sectors used to execute the view (1 sector = 1/4KB).
- (7) The names of the System/3X data files referenced by the view. Each name is left-justified in a field of 10 blanks.
- (8) The view title (20 characters).

***FILE REFERENCE SUMMARY LIST REPORT***

The format of the File Reference Summary List report is shown in Figure 4-18. The numbers in parentheses refer to notes following the figure.

mm-dd-yy	FILE REFERENCE SUMMARY LIST		Page nn
CONTROL FILE DL.CF (1)	FILE SIZE—nn SECTORS (2)	UNUSED—nn SECTORS (3)	
FILE NAME	VIEWS REFERENCING FILE		
xxxxxxx (4)	name name name . . . name (5)		

**Figure 4-18. Format of File Reference Summary List Report.**

#### NOTES

- (1) Control File DL.CF *applies only to System/34/36.*
- (2) The number of sectors in the Control file allocated for views, *applies only to System/34/36.*
- (3) The number of sectors remaining to hold views, *applies only to System/34/36.*
- (4) The name of a System/3X data file used by one or more views. Names are listed in alphabetic order (A-Z).
- (5) The names of those views referencing the named data file.

## 4.5 Create View From DDS Specifications

*This option is only available for System/38.*

If you choose option 6 (Create View From DDS Specifications) on the Data Base Views menu (Figure 4-1), the screen shown in Figure 4-19 is displayed on the screen.

```
mm/dd/yy                                     hh:mm:ss
                                     Create View from DDS

View Name ..... AAAAAA
Library ..... AAAAAAAAAA
Compile View?(Y/N) ..... A

                                     CMD 1 for End of Job
```

**Figure 4-19. View From DDS Specifications.**

With respect to this screen, the operator makes three entries:

1. Enter the name of the view (one to six characters) to be created or edited. The PC program will only be able to access views with alphanumeric names so avoid special characters when naming a view that is to be immediately available to PC users.
2. Enter the name of the library that contains or will contain the view. The default is DLINK and it is recommended that all views be kept in this library.

3. Enter a **Y** (default) if the view is to be compiled following creation or editing. Enter an **N** if compilation is to be skipped.

### NOTE

A view must be compiled before it can be used.

Press <**Enter**> to continue. For a *new DDS Specification view*, the screen shown in Figure 4-20 is displayed to request view definition data.

mm/dd/yy

Create View from DDS

hh:mm:ss

RECORD TYPE 1—VIEW HEADER

View Title ..... AAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAA

Access (R,E,L) ..... A

Security Access, (0-16) ..... XX

Group Access ..... AAAA

Cmd 7—for End of Job

**Figure 4-20. DDS View Title Specifications.**

With respect to the screen, the operator makes the following entries:

1. Specify the View Title, enter up to 50 alphanumeric characters, and press <**Field Exit**> to advance to the *Access* field.
2. Enter the corresponding Access. **R** = Read-Only view, **E** = Enter-Only view, or **L** = Library view.
3. The Security Access and Group Access fields are expanded security features not supported by this version of the software.

The next screen displayed (Figure 4-21) requests the name of the file to be accessed, the library, member name, and the mode of access.

```

mm/dd/yy                                Create View from DDS                                hh:mm:ss

File Name ..... AAAAAAAAAA
Library Name ..... AAAAAAAAAA
Member Name ..... AAAAAAAAAA
Access (I = Indexed,
      R = Relative Record) ..... A

Cmd 7—for End Of Job
  
```

**Figure 4-21. DDS View Record Specifications.**

With respect to the above, the following information is provided:

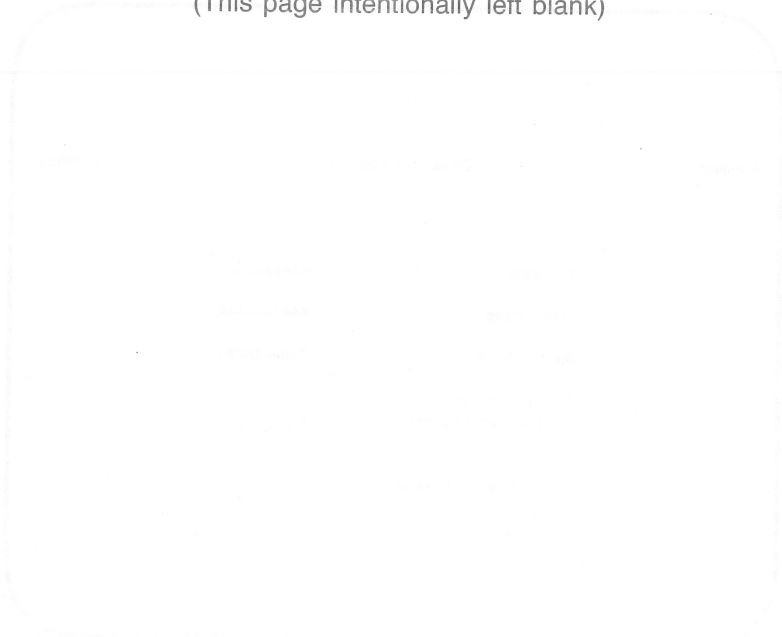
1. The first step in the process is to identify the problem area. This is done by reviewing the data and identifying the areas where the problem is most likely to occur.

2. The second step is to determine the cause of the problem. This is done by analyzing the data and identifying the factors that are most likely to be responsible for the problem.

3. The third step is to develop a plan of action. This is done by identifying the steps that need to be taken to solve the problem and by assigning responsibility for each step.

4. The fourth step is to implement the plan. This is done by carrying out the steps that have been identified in the plan of action.

(This page intentionally left blank)



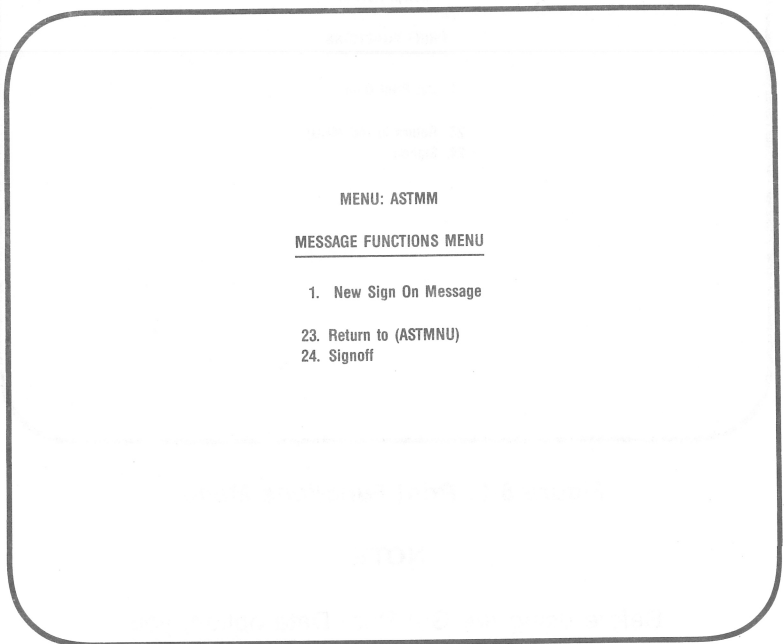
## SECTION 5

### ADDITIONAL FUNCTIONS

Two additional functions are available on the Master menu (Figure 2-3) — the Message and Print functions. The Message function allows you to define a new sign-on screen and the Print function allows you to copy selected spool file entries to a data file to be accessed by the PC user.

#### 5.1 Message Functions

If you choose function 3 (Message Function) on the Master menu, the submenu shown in Figure 5-1 is displayed on the screen.



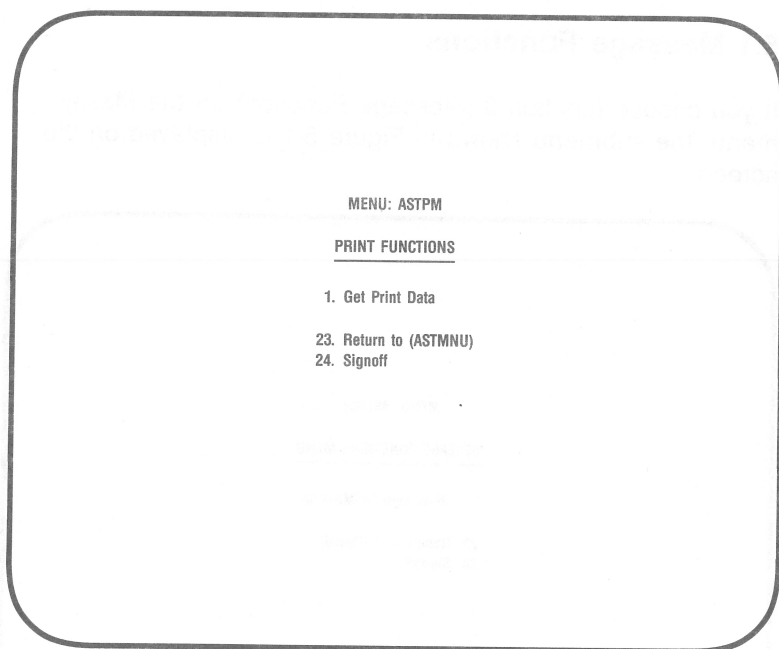
**Figure 5-1. Message Functions Menu.**



Once you select option 1 (New Sign-On Message) on this menu, the existing sign-on message (displayed when the PC user signs-on) is displayed. You may then enter a new sign-on message to be displayed when the PC user signs on to AST-5250FT/11-A.

## 5.2 Print Functions (System/34/36)

If you choose function 4 (Print Function) on the Master menu, the submenu shown in Figure 5-2 is displayed on the screen.



**Figure 5-2. Print Functions Menu.**

### NOTE

Before using the Get Print Data option, you should stop the spooler so that additional entries are on hold and are not added during the operation of this option.

If you choose option 1 (Get Print Data) on this submenu, you are requested to enter information to define the data to copy from the spool file to the data file. This option uses the System/3X procedure COPYPRT to copy the selected data to the data file.

The requested entries are explained in the following paragraphs.

**ENTRIES** — Enter one of the following:

**ALL** — Copy all spool file entries whose user ID matches the operator ID.

**SYSTEM** — Copy all entries.

**spool-id** — Copy specified spool file entry.

**Fxxxx** — Copy all entries with forms ID of xxxx.

**FILE NAME**—Enter the name of the data file to hold the selected spool file entries.

**CANCEL/RELEASE** — Enter **C** to cancel the selected spool file entries after they are copied. Enter **R** to release the spool file entries copies.

When all data are entered, the operator is given the option of cancelling the operation by entering **C** or to start the operation by pressing **<Enter>**.

### 5.3 Print Functions (System/38)

If you choose function 4 (Print Function) on the Master menu, the submenu shown in Figure 5-2 is displayed on the screen.

If you choose option 1 (Get Print Data) on this submenu, the screen in Figure 5-3 is displayed. You are requested to enter information to define the data to copy from the spool file

Additional Functions

to the data file. This option uses CL command CPYSPLF with CTLCHAR parameter PRTCTL to get a print file and save it in a data file, for access from a PC.

A view should be created which specifies this file. It should have a key, a four character alpha data field, and a data field of length 132 (see Appendix B for System/38 Prototype Views).

Copy Spooled File (CPYSPLF) Prompt

Enter the following:

Spool file name:

FILE

R

To data base file name:

TOFILE

R

Library name:

\*LIBL

Job name or \* for current job:

JOB

\*

User name:

Job number:

Spool file nbr or \*ONLY;\*LAST:

SPLNBR

\*ONLY

To member name:

TOMBR

\*FIRST

Replace or add records:

MBROPT

\*REPLACE

Control character:

CTLCHAR

\*PRTCTL

Channel values:

Channel number:

\*NORMAL

Line number:

\* for more

Figure 5-3. Print Function Display Screen System/38.

## SECTION 6

### FILE TRANSFER TUTORIAL SESSION

This tutorial session takes you step-by-step through the process of implementing and using a file transfer application.

The following assumptions apply to this tutorial session:

- The file transfer software is installed on the System/3X and the Control file needed for file transfer applications is created (refer to Section 2.3.2 of this manual).
- The PC file transfer software is ready to use on a PC.
- The file transfer *User's Manual* and *Operator's Manual* have been read and are available for reference during the tutorial.

In the example file transfer application implemented here, a PC user creates and adds to a list of data and accesses this data as needed from the PC.

Each data record is assumed to have the following format:

- Field 1: Alphanumeric data (30 characters).
- Field 2: Alphanumeric data (five characters).
- Field 3: Numeric Data (nnnnnn.nn format, eight digits).

The System/3X record length is thus 43 characters (bytes).

The PC user is assigned a user ID of FRAN and a password of AAAA for sign-on to the AST-5250FT/11-A system. The PC user ID and password for sign-on to the System/3X are ENGR and DEPT, respectively.

## 6.1 System/3X Session

This section guides you through the setup of the System/3X files needed to support the tutorial session for the PC user. All figure references used in these steps refer to figures in the *Operator's Manual*.

### 6.1.1 Activating the Master Menu

If the Master menu (Figure 2-3) is not already displayed at your terminal, enter the command:

*for System/34/36*

**// MENU ASTMNU,DLINK**

*for System/38*

**CALL DLINK.DLINK**

### 6.1.2 Assigning User Security

From the Master menu, ASTMNU, select option 1 (User Security). The User Security menu, ASTSM, (Figure 3-1) will be displayed.

Select option 1 from menu ASTSM to enter a new security profile.

The screen shown in Figure 3-2 requests entry of the user ID. Enter an ID of **FRAN**.

The screen shown in Figure 3-3 is now displayed. The parameters to be entered are:

Group      — This entry is optional and identifies the *group* to which the user belongs. Enter the group ID of **ENGR** and press <**Field Exit**> to proceed to the next field.

- PassWord** — Enter the user's password **AAAA** (required) and press **<Field Exit>**.
- Class** — This field is optional and exists to indicate the security levels to which the user has access (not supported in this version of the file transfer software). Press the **<Field Exit>** key to skip over this field.
- Level** — This is a security level parameter controlling the users access to certain secured fields. We will not be concerned with field level security in this example, so press **<Field Exit>** to skip this field.
- Comment** — This field is for any comments to help identify the user. None is needed. Press **<Enter>** and another User ID will be requested. Press **<Cmd>-<7>** to return to the Security menu ASTSM.

To review the security profile just entered, select option 3 and a screen similar to that shown in Figure 3-5 will be displayed. Press **<Cmd>-<7>** to return to menu ASTSM.

To return to the Master menu, select option 23.

### 6.1.3 Defining the Views

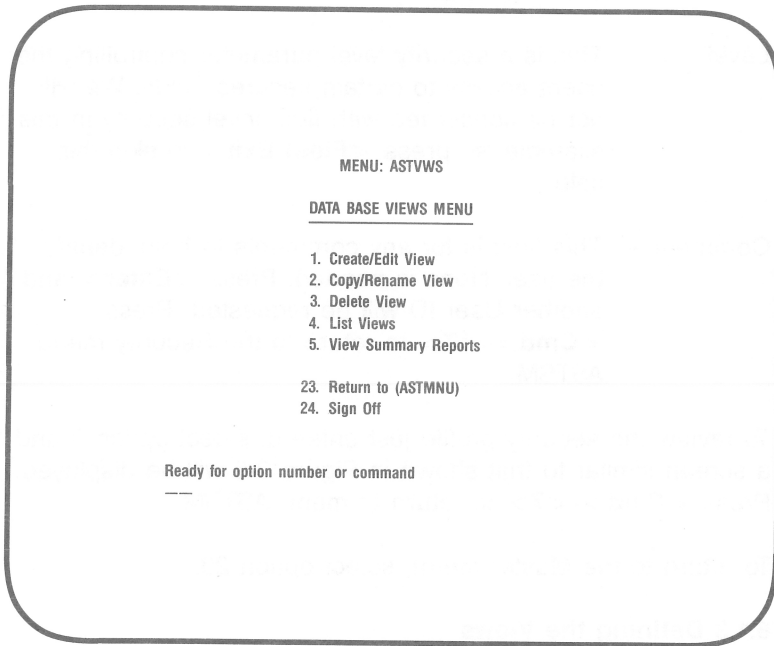
Two views must be created: one to take data from the PC and store it on the System/3X (Enter-Only view) and one to access the data and send it to the PC (Read-Only view). A System/3X file must be created to hold the data and the record format — two alpha fields and one numeric field (assume zoned) for a record length of 43 bytes. The names of the views and their format must be provided to the PC user.

The steps to accomplish this are as follows:

### STEP 1

Select option 2 (Data Views) from the Master menu ASTMNU.

The Data View menu, ASTVWS, is displayed as shown in Figure 6-1.



**Figure 6-1. Data Base Views Menu.**

### STEP 2

Create the Enter-Only view (PCPUT).

Select option 1 (Create/Edit) from the view menu ASTVWS.

The view name is requested by the resulting display as shown in Figure 6-2.

Create/Edit View

View Name .....

View Library ..... DLINK

Compile View (Y/N)..... Y

Revise all Parameters and ENTER to Continue or  
CMD 7 for End of Job

**Figure 6-2. Create/Edit View Screen.**

Enter the name **PCPUT**. The View Library should normally be **DLINK** and this default is displayed. Press the <**Tab**> key to skip to the Compile View (Y/N) entry. System/3X defaults to **Y** since you must compile a view in order to use it. **N** (for no) would be an appropriate response when a view is to be partially created for review and is not to be immediately used.



The screen should appear as shown in Figure 6-3.

Create/Edit View

View Name ..... PCPUT

View Library ..... DLINK

Compile View (Y/N)..... Y

Revise all Parameters and ENTER to Continue or  
CMD 7 for End of Job

**Figure 6-3. Create/Edit View Screen Showing Entered Data.**

Press <Enter> to continue. For a *new view*, the screen shown in Figure 6-4 is displayed to request view definition data.

```

CREATE/EDIT VIEW  PCPUT

Record Type — 1 View Header

View Title .....

Access (R,E,L) .....

Security Access (0-16) .....00

Group Access .....

CMD 5 to Display/Browse (no update)  CMD 7 to End Job
  
```

**Figure 6-4. View Header Screen for PCPUT.**

Specify the title **ENTER PC DATA** and press <Field Exit> to advance to the Access field. Enter **E** for this field since this is to be an Enter-Only view (type E) rather than a Read-Only view (type R) or a Library View (type L). The Security Access and Group Access fields are expanded security features not supported by this version of the software. At this point the screen appears as shown in Figure 6-5. Press <Enter> to continue.

```
CREATE/EDIT VIEW PCPUT

Record Type — 1 View Header

View Title ..... ENTER PC DATA

Access (R,E,L) ..... E

Security Access (0-16) ..... 00

Group Access .....

CMD 5 to Display/Browse (no update)  CMD 7 to End Job
```

**Figure 6-5. View Header Screen With Data Entered.**

The next screen displayed (Figure 6-6) requests the name of the file to be accessed and the mode of access. *On the System/38 only*, it also requests the library name and field name.

Enter the file name **PCDATA**, and press **<Field Exit>**.

*For System/38 Users:* If you are working on a System/38 enter the library name **DLINK** and press **<Field Exit>**. Then, enter the member name **PCDATA** press **<Field Exit>**.

For all System/3X users: Enter an **R** (Relative Record) for the Access (see Figure 6-7). Press **<Enter>**.

CREATE/EDIT VIEW    PCPUT

Record Type — 2 Record Definition Header

File Name .....

Library Name .....

Member Name .....

Access (I = Indexed,  
R = Relative Record) .....

CMD 5 to Display/Browse (no update)    CMD 7 to End Job

**Figure 6-6. Record Definition Header Screen.**

CREATE/EDIT VIEW    PCPUT

Record Type — 2 Record Definition Header

File Name ..... PCDATA

Library Name ..... DLINK

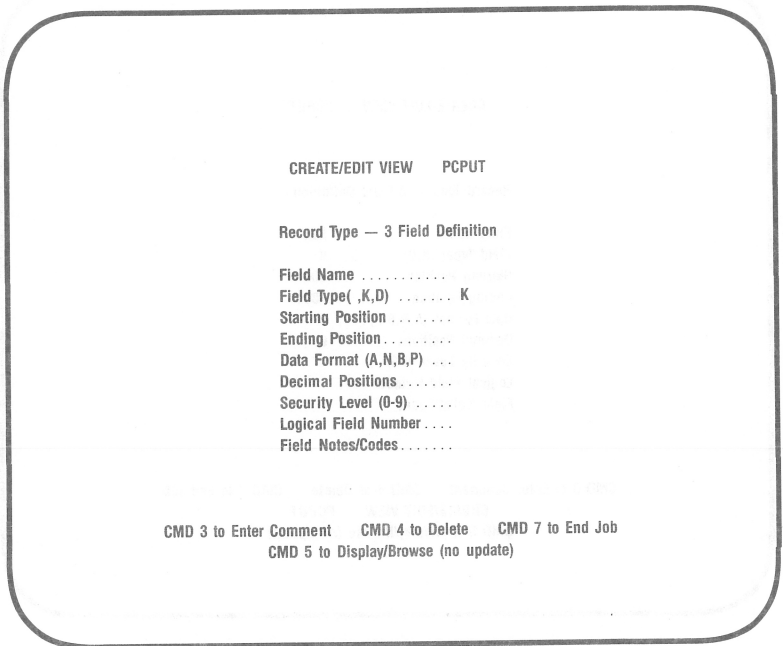
Member Name ..... PCDATA

Access (I = Indexed,  
R = Relative Record) ..... R

CMD 5 to Display/Browse (no update)    CMD 7 to End Job

**Figure 6-7. Record Definition Header with Data Entered.**

The next screen (Figure 6-8) requests the fields of interest from the named file. The first field entered must always be a Key field (Field Type = K) and "K" is the default displayed. Use the <Field Exit> key to progress through the various fields.



```

CREATE/EDIT VIEW  PCPUT

Record Type — 3 Field Definition

Field Name .....
Field Type( ,K,D) ..... K
Starting Position .....
Ending Position .....
Data Format (A,N,B,P) ...
Decimal Positions .....
Security Level (0-9) ....
Logical Field Number ....
Field Notes/Codes .....

CMD 3 to Enter Comment  CMD 4 to Delete  CMD 7 to End Job
CMD 5 to Display/Browse (no update)
  
```

**Figure 6-8. Field Definition Screen.**

Enter **KEY** for the Name (any name is allowed) and press <Field Exit>. Enter a **K** for the field type and press <Field Exit>.

The starting and ending positions within the record for a key are arbitrary, but the ending position must be greater than the starting position. Enter **1** for the starting position and press <Field Exit>, then enter **4** for the ending position and press <Field Exit> again.

Enter **N** for the data format and press **<Field Exit>**. Enter **0** for the decimal positions, press **<Field Exit>**, and press **<Enter>** (skipping the rest of the fields). The screen should appear as shown in Figure 6-9. Press **<Enter>** to continue.

CREATE/EDIT VIEW    PCPUT

Record Type — 3 Field Definition

Field Name ..... KEY

Field Type( ,K,D) ..... K

Starting Position ..... 0001

Ending Position ..... 0004

Data Format (A,N,B,P) .... N

Decimal Positions ..... 0

Security Level (0-9) .....

Logical Field Number .....

Field Notes/Codes .....

CMD 3 to Enter Comment    CMD 4 to Delete    CMD 7 to End Job

CREATE/EDIT VIEW    PCPUT

CMD 5 to Display/Browse (no update)

**Figure 6-9. Field Definition Screen with Data Entered.**

Define the data fields as shown in Figures 6-10 through 6-12. Note that on a data entry view, the starting/ending positions denote the field length and not the positions where the field will occur in the record. Logical field number 1 will always be the first field in the data record, field 2 the second, and so forth.

CREATE/EDIT VIEW   PCPUT

Record Type — 3 Field Definition

Field Name ..... FIELD1  
 Field Type( ,K,D) .....  
 Starting Position ..... 0001  
 Ending Position ..... 0030  
 Data Format (A,N,B,P) .... A  
 Decimal Positions .....  
 Security Level (0-9) .....  
 Logical Field Number ..... 001  
 Field Notes/Codes .....

CMD 3 to Enter Comment   CMD 4 to Delete   CMD 7 to End Job  
 CREATE/EDIT VIEW PCPUT  
 CMD 5 to Display/Browse (no update)

**Figure 6-10. Field Definition — Field 1.**



CREATE/EDIT VIEW PCPUT

Record Type — 3 Field Definition

Field Name ..... FIELD2  
Field Type( ,K,D) .....  
Starting Position ..... 0031  
Ending Position ..... 0035  
Data Format (A,N,B,P) . . A  
Decimal Positions .....  
Security Level (0-9) .....  
Logical Field Number . . . 002  
Field Notes/Codes .....

CMD 3 to Enter Comment    CMD 4 to Delete    CMD 7 to End Job  
CREATE/EDIT VIEW PCPUT  
CMD 5 to Display/Browse (no update)

**Figure 6-11. Field Definition — Field 2.**

CREATE/EDIT VIEW    PCPUT

Record Type — 3 Field Definition

Field Name ..... FIELD3  
Field Type( ,K,D) .....  
Starting Position ..... 0036  
Ending Position ..... 0043  
Data Format (A,N,B,P) .. N  
Decimal Positions ..... 2  
Security Level (0-9) .....  
Logical Field Number ... 003  
Field Notes/Codes .....

CMD 3 to Enter Comment    CMD 4 to Delete    CMD 7 to End Job  
CREATE/EDIT VIEW PCPUT  
CMD 5 to Display/Browse (no update)

**Figure 6-12. Field Definition — Field 3.**

Press <Cmd>-<7> when all fields are defined. The End-of-Job (EOJ) options are displayed as shown in Figures 6-13 and 6-14. The default for *System/34/36* is **Y** which places the view in the library. The default for *System/38* replaces a member in a file and continues processing. Any uncorrected errors will appear on the screen. If any are displayed, press <Enter> to continue.

```
CREATE/EDIT VIEW  PCPUT

— End of Edit —

Replace Source in Library (Y/N/R) .....

Y—Yes
N—No
R—Return to Browse
```

**Figure 6-13. End-Of-Job Options Screen.**

At EOJ, a view source listing is generated automatically. Figure 6-14 shows the report for the view just defined.

VIEW NAME: PCPUT			ACCESS: E		GROUP:		SECURITY CLASS: 00				
VIEW TITLE: ENTER PC DATA					DATE: 6/20/85		TIME: 16.30.53				
STMT NO	SEQ NO	TYPE	FILE NAME		FILE ACCESS		PRIOR REC				
002	0020	2	PCDATA		R						
STMT NO	SEQ NO	TYPE	FIELD NAME	FIELD TYPE	FROM	TO	DATA FMT	DEC POS	FLD SEC	LOG FLD	FIELD NOTES
003	0030	3	KEY	K	0001	0004	N	0	0	000	
004	0040	3	FIELD1		0001	0030	A		0	001	
005	0050	3	FIELD2		0031	0035	A		0	002	
006	0060	3	FIELD3		0036	0043	N	2	0	003	
ERROR LVL TEXT/ACTION											
DL -0099 I NO ERRORS DETECTED											
LOGICAL RECORD LENGTH 43											

**Figure 6-14. View Source Listing for PCPUT.**

### NOTE

*System/38* will display the file library name and member name.

The screen displays the Data Base View menu ASTVWS.

### STEP 3

Create the Read-Only view (PCGET).

The Enter-Only view just defined is the same as the Read-Only view except for the View Name and View Title parameters. The easiest way to define this view is to use the Copy/Rename option from menu ASTVWS. Copy view PCPUT into a view named PCGET and then edit only the View Title specification.

Select option 2 from menu ASTVWS. The screen shown in Figure 6-16 is presented. Enter **PCPUT** for the view name to be copied and **PCGET** for the new view name. Leave the default library names unchanged. Press **<Enter>** to continue.

View Copy and Rename

View Name .....

View Library ..... DLINK

New View Name .....

New View Library ..... DLINK

Revise all Parameters and ENTER to continue  
or CMD 7 for End of Job

**Figure 6-15. View Copy and Rename Screen.**

After view PCGET is created from a copy of PCPUT, the view Source Editor is automatically executed so that the new view can be edited. Figure 6-16 shows the records of the view to be edited in *display* format — each statement of the view is displayed preceded by a sequence number used to access that statement.

CREATE/EDIT VIEW    PCGET

seq#	rec	name-----	type	attributes-----	note-----
0010	1	PCGET	E	00	ENTER PC DATA
0020	2	PCDATA	R		
0030	3	KEY	K	0001-0004 N0 0 000	
0040	3	FIELD1		0001-0030 A0 0 001	
0050	3	FIELD2		0031-0035 A0 0 002	
0060	3	FIELD3		0036-0043 N2 0 003	

Enter Sequence Number to Edit (ADD): 0000  
 CMD 1 to Scroll through View    CMD 7 to End Job

**Figure 6-16. View Source Editor Screen.**

Enter **10** for the sequence number to edit (first statement).  
Figure 6-17 shows the resulting display. Change the Title and  
Access as shown in Figure 6-18 and press **<Enter>**.

CREATE/EDIT VIEW    PCGET

Record Type — 1 View Header

View Title ..... GET PC DATA

Access (R,E,L) ..... E

Security Access (0-16) .... 00

Group Access .....

CMD 5 to Display/Browse (no update)    CMD 7 to End Job

***Figure 6-17. PCGET Information to Edit.***

CREATE/EDIT VIEW    PCGET

Record Type — 1 View Header

View Title ..... GET PC DATA

Access (R,E,L) ..... R

Security Access (0-16) .. 00

Group Access .....

CMD 5 to Display/Browse (no update)    CMD 7 to End Job

**Figure 6-18. PCGET With Correct Information Added.**



Use <Cmd>-<5> followed by <Cmd>-<1> to review the edited view (see Figure 6-19).

CREATE/EDIT VIEW    PCGET

seq#	rec	name-----	type	attributes-----	note-----
0010	1	PCGET	R	00	ENTER PC DATA
0020	2	PCDATA	R		
0030	3	KEY	K	0001-0004 N0 0 000	
0040	3	FIELD1		0001-0030 A0 0 001	
0050	3	FIELD2		0031-0035 A0 0 002	
0060	3	FIELD3		0036-0043 N2 0 003	

Enter Sequence Number to Edit (ADD): 0000

CMD 1 to Scroll through View    CMD 7 to End Job

**Figure 6-19. Reviewing the Edited PCGET.**

Press <Cmd>-<7> for EOJ. Press <Enter> to select **Y** as the default, replacing the view in the library (*System/34/36*) or a member in a file (*System/38*), and continue processing. The resulting report is shown in Figure 6-20.

ERROR	LVL	TEXT/ACTION
DL-009	I	NO ERRORS DETECTED
LOGICAL RECORD LENGTH 43		

**Figure 6-20. End-Of-Job Report.**

**STEP 4**

Create the View Definition Reports for the user.

Select option 4 (List Views) from menu ASTVWS, enter **PCPUT** for the view name and then repeat the process for view name PCGET. The View reports for the user are shown in Figures 6-21 and 6-22.

VIEW NAME: PCPUT				ACCESS(R,E,L): E GROUP:		SECURITY (0-16): 00	
VIEW TITLE: ENTER PC DATA				DATE: 6/18/85			
FIELD					SOURCE		
NO.	NAME	TYPE	LENGTH	NOTES	FILE	FIELD SPECIFICATION	
KEY	KEY	N	4.0		PCDATA	0001-0004,N,0	
001	FIELD1	A	30			0001-0030,A	
002	FIELD2	A	5			0031-0035,A	
003	FIELD3	N	6.2			0036-0043,N,2	

*Figure 6-21. PCPUT View Definition Report.*

VIEW NAME: PCGET		ACCESS(R,E,L): E GROUP:		SECURITY (0-16): 00		
VIEW TITLE: GET PC DATA				DATE: 6/18/85		
FIELD				SOURCE		
NO.	NAME	TYPE	LENGTH	NOTES	FILE	FIELD SPECIFICATION
KEY	KEY	N	4.0		PCDATA	0001-0004,N,0
001	FIELD1	A	30			0001-0030,A
002	FIELD2	A	5			0031-0035,A
003	FIELD3	N	6.2			0036-0043,N,2

**Figure 6-22. PCGET View Definition Report.**

### STEP 5

Create the System/3X Data File.

*For System/34/36 users:* Use procedure BLDFILE to build a sequential file named PCDATA with a record length of 43. Allocate 20 records.

*For System/38 users:* The File Transfer library DLINK must be added to the library list before File Transfer may begin. Enter the following command to add DLINK to the library list.

**RPLLIBL LIBL(DLINK QIDU QTEMP QGPL)**

Use the CRTPF command to build a sequential file named PCDATA with a record length of 43. Allocate 20 records.

**CRTPF FILE (PCDATA.DLINK) RCDLEN(43) SIZE(20)**

### 6.1.4 Prototype Views (V\$LIBR & VPRT)

While not directly connected to the application views we have been concerned with, this is a good point to consider briefly the prototype views placed in library DLINK at installation time. These views show you what a library and print file data view must look like.

#### **CRTPF FILE (PCDATA.DLINK) RCDLEN(43) SIZE(20)**

These prototype views have names which preclude their being used directly from a PC (the "\$" in the name is invalid at the PC). In order to create your own views from the prototypes, use the Copy & Rename option from the View menu and rename these views (for example, rename V\$LIBR to LIBRV and VPRT to PRINT). In addition, the file name in the Record Definition record must be set to a valid library name for LIBRV and a valid data file name for PRINT. It is not necessary to create the data file for the print function as this will be done when the Get Print function is used (from the Master menu).

You may wish to create your own views from the prototypes at this time. Refer to STEP 3 in Section 6.1.3 for the procedure to copy and rename a view. The only change required to the new views is the file name.

## 6.2 PC Session

From the preceding System/3X session everything is now ready to use the example application. It is assumed that the AST Emulator software has already been activated and the PC-DOS session is active.

**STEP 1**

Enter test data.

Create some test data to put to view named PCPUT.

To do so, type the following immediately after the DOS prompt:

**COPY CON: DATA <Enter>**

This command causes any entry on the keyboard to be copied to a file named DATA on the default drive.

Type the following data records:

**AAAAAAAAAAAAAAAAAA,12345,100.55 <Enter>**

**BBBBBBBBBBBBBBBBBB,67890,200.99 <Enter>**

**CCCCCCCCCCCCCCCC,99999,999.99 <F6>**

Now press <F6> to signal End-Of-File (EOF) and return to the DOS prompt. The data is now on diskette in format type 0; variable length fields of ASCII characters separated by commas and ending with a *return* code. If any alphanumeric field (fields 1 and 2) contains a comma, that field should be enclosed with double quote marks (" ").

**STEP 2**

Execute File Put function to send data to System/3X.

Enter the following after the DOS prompt:

**ASTFT11 <Enter>**

Sign-on with the ID of FRAN and the password AAAA.

In response to the function selection message, press <F2> to select the File Put function.

When the file specification prompt is displayed, enter **DATA** for the PC file. When the format prompt is displayed, enter **0**. (The format type specified must always match the format of the data on the diskette when performing a File Put function.)

Enter **PCPUT** for the view name and press **<Enter>** to start transferring data.

### STEP 3

Execute the File Get function to receive and verify data from System/3x.

You can now get the data back using view PCGET and verify that all information is correct. The data can be retrieved in any format (Lotus™ or DIF, for example). Type 0, the same format used on the PUT, will get the data back in a form that can be compared with the original.

Press **<F1>**. Enter **DATA1** for the PC file name and **0** for the format.

Enter **PCGET** for the view name and press **<Enter>**.

When the transfer is complete, press any key then press **<Esc>** twice to exit to DOS.

From DOS, type **TYPE DATA1** to display the data just received.

You may wish to retrieve the data using other formats just to see what happens; most of the formats will not display meaningful data when using the DOS **TYPE** command. Format type 2 (DIF) does, however, make an interesting display.

You may also try putting more data using view PCPUT. If the format of the data to be put does not match the format type specified, a **FORMAT ERROR** message will normally occur. Try getting the data in format type 3 (into file DATA2) and then putting it using format 0 or 1.

## APPENDIX A

### ERROR MESSAGES

#### A.1 AST-5250FT/11-A View Errors

AST-5250FT/11-A messages are identified by a display of the form: DL-xxxx, where xxxx is the error/message ID number. The error numbers and error descriptions for view specification errors are listed below.

- 0001      INVALID RECORD TYPE  
**Explanation:** An invalid (nonview) record format was read and ignored.  
**Action:** Re-enter record type.
- 0003      NO VIEW TITLE RECORD  
**Explanation:** Every view must start with a Title specification and none was found.  
**Action:** Enter view title.
- 0004      NO RECORD DEFINITION HEADER FOR THIS VIEW  
**Explanation:** Following the View Title must be a Record Definition specification and none was found.  
**Action:** Enter Record Definition Header.
- 000      UNDEFINED LOGICAL FIELD NUMBER  
**Explanation:** In the sequence from 1 to the highest Logical Field Number specified, a number was missing.  
**Action:** Enter View/Edit and check Logical Field Number sequence.



## Error Messages

- 1001 VIEW ACCESS TYPE NOT -R-E-L  
**Explanation:** The view type must be R, E, or L and was specified otherwise.  
**Action:** Re-enter View Type.
- 1002 VIEW TITLE IS BLANK  
**Explanation:** The view Description Title was blank. This is allowed, but a description is recommended.  
**Action:** Enter view Description Title.
- 1003 VIEW SECURITY CLASS INVALID  
**Explanation:** Valid Security Class values are 00 to 16.  
**Action:** Re-enter Security Class.
- 1004 MORE THAN ONE VIEW TITLE RECORD FOUND  
**Explanation:** Only one View Title specification is allowed.  
**Action:** Check View Titles.
- 2002 INVALID FILE NAME  
**Explanation:** File name input is required and should correspond to valid System/3X naming conventions.
- 2004 FILE ACCESS OPTION NOT -I-R  
**Explanation:** Valid File Access options are I and R only (R is assumed).  
**Action:** Re-enter file Access option.
- 2005 NO FIELD DEFINITIONS SPECIFIED  
**Explanation:** At least one field must be specified in a Record Definition and at least one data field per view.  
**Action:** Enter Field in Record Definition.

- 3001 FIELD NAME MISSING OR INVALID  
**Explanation:** No field name was specified; one is recommended.  
**Action:** Enter Field Name.
- 3002 FIELD TYPE MISSING OR INVALID  
**Explanation:** The field type specified was not blank, K, or D.  
**Action:** Enter Field Type.
- 3003 FROM/TO LOCATION MISSING OR INVALID  
**Explanation:** From/to values must be numeric and must be from 1 to 4096. The "from" value must be less than or equal to the "to" value.  
**Action:** Re-enter Starting Position/Ending Position.
- 3004 DECIMAL POSITIONS GREATER THAN SPECIFIED LENGTH  
**Explanation:** The number of digits after the decimal point cannot exceed the number of digits.  
**Action:** Re-enter Decimal Positions.
- 3005 DATA FORMAT TYPE NOT -A-N-P-B  
**Explanation:** The data type specified was not A, N, P, or B.  
**Action:** Re-enter Data Format.
- 3006 DECIMAL POSITIONS REQUIRED  
**Explanation:** No decimal positions was specified for a numeric field (0 is assumed).  
**Action:** Enter Decimal Position according to specific System/3X data attributes.

## Error Messages

3007     DECIMAL POSITIONS NOT ALLOWED  
**Explanation:** A decimal positions value was specified for an Alphanumeric data field (it is ignored).

3008     SECURITY LEVEL NOT 0 THRU 9  
**Explanation:** Valid security level values are 0 to 9 (0 assumed).

**Action:** Re-enter Security Level (0-9).

3009     LOGICAL FIELD NUMBER REQUIRED FOR DATA FIELD  
**Explanation:** Every data field must have a numeric Logical Field Number. A Key field may also be a data field by specifying a Logical Field Number.

**Action:** Check Logical Field Numbers and re-enter.

3010     FIELD LENGTH INVALID FOR THIS DATA FORMAT  
**Explanation:** Alpha fields have a maximum length of 256, Binary fields may be 1-4 bytes in length, Packed fields are 1-8 bytes, and Zoned Decimal fields have a maximum length of 16.

**Action:** Check Field Length for corresponding Data Format.

3011     LOGICAL FIELD NUMBER GREATER THAN 125  
**Explanation:** The largest Logical Field Number allowed is 125.

**Action:** Check Logical Field Number for maximum.

3012     LOGICAL FIELD NUMBER INVALID FOR THIS FIELD TYPE  
**Explanation:** Logical Field Numbers are invalid on a "D" type field.

**Action:** Check Logical Field Numbers and re-enter.

- 3013 LOGICAL FIELD NUMBER DEFINED IN MULTIPLE LOCATIONS  
**Explanation:** Logical Field Numbers must be unique; duplicate numbers are not allowed.  
**Action:** Check for duplicate Logical Field Numbers and delete.
- 3014 ONE KEY & ONLY ONE KEY PER RECORD DEFINITION  
**Explanation:** Only one Key field and only one may be specified in a Record Definition.  
**Action:** Check and re-enter.
- 3015 KEY LENGTH GREATER THAN 29  
**Explanation:** The key length specified exceeded 29.  
**Action:** Check Key Length and re-enter.
- 3017 DELETE CODE LENGTH GREATER THAN 1  
**Explanation:** The length of a Delete code field is 1.
- 3018 LOGICAL RECORD SIZE GREATER THAN 512  
**Explanation:** The maximum Logical Record Size is 512.  
**Action:** Correct view, change or delete Field Size.
- 4001 VIEW CAPACITY EXCEEDED  
**Explanation:** Only 128 views can be specified.  
**Action:** The View library is currently full; delete unused views.
- 4002 INVALID SOURCE INPUT  
**Explanation:** The view source record read has an invalid format.  
**Action:** Check View Specification.

## Error Messages

### 4003 DISK SYSTEM ERROR

**Explanation:** A disk I/O error occurred when trying to add the view to the object library in file DL.CF.

**Action:** Report problem to System/34/36 operator.

### 4005 VIEW TOO BIG

**Explanation:** The view specified is too big. This can only happen if the view is defined with many extraneous fields. For example, 500 deleted record specifications.

**Action:** Define as two separate views or edit extraneous fields.

## APPENDIX B

### VIEW PROTOTYPES

The Library (V\$LIBR) and Print (VPRT) view prototypes are not placed in library DLINK as part of the installation procedure. This is to allow all the installation software to fit on one diskette. These views are described below.

#### B.1 Library View: V\$LIBR

##### View Title

VIEW TITLE	PROTOTYPE LIBRARY VIEW
ACCESS (R,E,L)	L
SECURITY ACCESS (0-16)	00
GROUP ACCESS	

##### View Record Definition

FILE NAME	QRPGRSRC	Source file
LIBRARY NAME	LIBRARY	library
MEMBER NAME	QRPGRSRC	same as file name
ACCESS (I = INDEXED, R = RELATIVE RECORD)	R	

##### View Field Specifications

FIELD NAME	KEY	dummy key
FIELD DESCRIPTION		
FIELD TYPE ( ,K,D)	K	
STARTING POSITION	1	
ENDING POSITION	1	
DATA FORMAT (A,N,P,B)	A	
DECIMAL POSITIONS		
SECURITY LEVEL (0-9)		
LOGICAL FIELD NUMBER		
FIELD NOTES / CODES		

## View Prototypes

FIELD NAME	SOURCE	
FIELD DESCRIPTION		
FIELD TYPE ( ,K,D)		
STARTING POSITION	1	field length is
ENDING POSITION	92	arbitrary—
DATA FORMAT (A,N,P,B)	A	actual length
DECIMAL POSITIONS		of member is
SECURITY LEVEL (0-9)		used.
LOGICAL FIELD NUMBER	1	one and only
FIELD NOTES / CODES		logical field.

## B.2 Get Print Data View: VPRT

### View Title

VIEW TITLE	GET PRINT DATA VIEW
ACCESS (R,E,L)	R
SECURITY ACCESS (0-16)	00
GROUP ACCESS	

### View Record Definition

FILE NAME	LISTING	file from
LIBRARY NAME	LIBRARY	CPYSPLF
		library
MEMBER NAME	LISTING	same as file
ACCESS (I = INDEXED, R = RELATIVE RECORD)	R	name

View Field Specifications

FIELD NAME KEY		
FIELD DESCRIPTION	PRINT CONTROL	from *PRTCTL
FIELD TYPE ( ,K,D)	K	
STARTING POSITION	1	
ENDING POSITION	4	
DATA FORMAT (A,N,P,B)	A	
DECIMAL POSITIONS		
SECURITY LEVEL (0-9)		
LOGICAL FIELD NUMBER	1	
FIELD NOTES / CODES		
FIELD NAME	PRLINE	
FIELD DESCRIPTION	PRINT LINE	
FIELD TYPE ( ,K,D)		
STARTING POSITION	5	
ENDING POSITION	136	132 char print
DATA FORMAT (A,N,P,B)	A	line
DECIMAL POSITIONS		
SECURITY LEVEL (0-9)		
LOGICAL FIELD NUMBER	2	
FIELD NOTES / CODES		



(This page intentionally left blank)

**AST RESEARCH, INC.**

**Product Comment Form**

AST-5250FT/11-A  
Operator's Manual  
000703-001A

We appreciate your comments regarding any problems or suggestions related to AST Research products. Please use this form to communicate any observations that you have concerning the improvement of either the product itself or the product documentation provided in this manual.

**Submitter Information**

Submitter's name:

Address:

**Product/Manual Comments and Suggestions**

Please mail this form to:

AST Research, Inc.  
Attn: Product Marketing  
2121 Alton Ave.  
Irvine, CA 92714-4992





000703-001A

PRINTED IN HONG KONG  
H 630